

# EXSICCATAE OF MISSOURI *DESMODIUM* (FABACEAE)

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**Abstract.** Herbarium voucher specimens of *Desmodium* (Fabaceae) from Missouri were examined in preparation of a treatment of the genus for *Steyermark's Flora of Missouri*, Vol. 2.

**Keywords:** Flora of Missouri, *Desmodium*, Fabaceae, exsiccatae.

The standard reference for Missouri plants for the last four decades has been the *Flora of Missouri* (Steyermark 1963). A new comprehensive treatment, *Steyermark's Flora of Missouri*, is currently being prepared with volume 1, covering the ferns, conifers, and monocots, already completed (Yatskievych 1999). The two remaining volumes

will cover the dicot families. A treatment of *Desmodium* Desv. (Fabaceae) has been submitted for inclusion in volume 2. The present paper lists the voucher specimens examined and provides distributional documentation of species ranges. In addition the identifications of published and unpublished collections have been confirmed.

## METHODS

Herbarium specimens of *Desmodium* were examined and annotated from eight herbaria that were particularly relevant to the project focus. All data were recorded from most specimens with the pri-

mary exceptions being vouchers that included extensive 'form' habitat information. The recording of multiple collectors was not consistent and some citations list only the first collector.

## RESULTS AND DISCUSSION

Twenty species are recognized as occurring spontaneously in Missouri and all are considered native elements of the flora. The label information from the herbarium voucher specimens examined are listed. For convenience, two additional taxa, *D. cuspidatum* (Muhl. ex Willd.) DC. ex Loudon var. *longifolium* (Torr. & A. Gray) B.G. Schub. and *D. x humifusum* (Muhl. ex Bigelow) L.C. Beck, are segregated for reasons elaborated below.

The taxa are listed alphabetically with the specimens within each taxon grouped by county. The county names are in bold type to aid in browsing and the initial word of each new specimen capitalized. Collector names and numbers are italicized with "s.n." (*sine numero*) used when no collection number was assigned. Certain common words are abbreviated (see Table 1). Standard herbarium acronyms (Holmgren et al. 1990) are used except for the herbarium designated as 'Powell.' This collec-

tion is the fourth largest in the state but has never been listed in *Index Herbariorum*. It was amassed by Dr. Norlan Henderson primarily while at the University of Missouri-Kansas City and since shortly after his retirement in 1986 this herbarium has been housed at Powell Botanical Gardens, Kingsville, Missouri. Author abbreviations follow the traditional Brummit & Powell (1992) style as given at the 'The International Plant Names Index' web site: <http://www.ipni.org/index.html>.

Most locations in Missouri can be described using standard township/range/section designations and these are included when used by the collectors. They are presented in the format "T28N R14E S09" for township 28 north, range 14 east, section nine. Any subdivisions of a section (e.g. SW1/4) immediately precede the section. Primarily along the Mississippi River there were Spanish land grants that predate and supersede the stan-

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TABLE 1. List of abbreviations used.

alt	altitude, elevation	NW	northwest
Ave	Avenue	R+number	range (with number)
Blvd	Boulevard	Rd, rd	road
ca	about, <i>circa</i>	RR	railroad
Co. or co	county	Rte, rte	route
E	east	S	south
ft	feet (foot)	<i>s.n.</i>	sine numero (used with collectors names where no collection number was assigned)
Hwy, hwy	highway	S+number	section (with number)
jct	junction	SE	southeast
m	meter(s)	SW	southwest
mi	mile(s)	T+number	township (with number)
MO	Missouri (used with state highway numbers)	W	west
N	north	yds	yards
NE	northeast		

dard system. None of the specimens in the present list use Spanish land grant numbers.

A more extensive discussion of the taxonomic and nomenclatural complexity of this group will be presented elsewhere (in prep.) but a few comments are required to explain the annotations. Those specimens passing as *D. cuspidatum* var. *longifolium* include a wide variety of morphologies. The most common morphology placed in this variety strongly resembles the typical *D. cuspidatum* var. *cuspidatum* except for more profound pubescence on the stems and leaves. Other specimens have multiple traits that grade toward *D. perplexum* B.G. Schub. or *D. canadense* (L.) DC. at one extreme or *D. canescens* (L.) DC. at another. Some of these specimens could represent hybrids with other species but no documentation of hybridization has been published. Until further research clarifies the status of the aberrant individuals, it seems most prudent to segregate the extreme forms of *D. cuspidatum* into a different variety rather than expanding the concept of this otherwise well-defined species.

The most difficult species complex in this genus in Missouri contains *D. glabellum* (Michx.) DC., *D. paniculatum* (L.) DC., and *D. perplexum*. Detailed morphological examination of the group by Isely lead initially to the recognition of one species (Isely 1953) but a different conclusion was reached upon reexamination of the group when three species were recognized (Isely 1983). These three species show little ecological differentiation and frequently occur together where they usually main-

tain consistent, if minor, differences. Only occasionally are sites found where the species-specific differences break down by either having a number of plants with a single atypical combination of traits or more rarely several different combinations of atypical traits (pers. obs.). Allozyme evidence indicates that local interspecific hybridization may be responsible for the population-level mixing of morphologically distinguishing traits (Raveill 1995). The differentiation of these three species based on herbarium specimens is much more problematic than in the field. The ideal *D. paniculatum* has narrow leaflets that are at least 3.5 times longer than broad and at most short, strigose pubescence on the stems and leaves. Numerous specimens are encountered that most closely resemble this species but do not match the ideals. Leaflets as wide as 2.5 times longer than broad are found as well as specimens with various degrees of pilose and/or uncinulate pubescence on the stem. The specimens with leaflet dimensions typical of this species but with very dense pubescence are marked with an asterisk.

The other two species in this complex, *D. glabellum* and *D. perplexum*, have broader leaflets (<3.5 x) and have more pronounced pubescence. *Desmodium glabellum* has prominently reticulate leaflets with obtuse apices, shorter petioles, and stem pubescence that is largely composed of uncinulate hairs. The aptly named *D. perplexum* occurs in a variety of forms but generally has leaflets with less obvious veins and more acute apices, longer petioles, and the stem pubescence that consists of a

mixture of uncinulate and pilose hairs. While the stem pubescence is the easiest trait to use in separating these extremely similar species, it is highly variable and should not be used exclusively. In most every population of *D. glabellum*, at least a few individuals will have pilose hairs at the nodes and sometimes the pilose hairs extend in lines for a short distance below the nodes. Perhaps 20% of herbarium specimens cannot be readily placed into one or the other of these two species and some nearly glabrous specimens of both closely approach *D. paniculatum*.

The continued recognition of these three species is highly questionable and perhaps all should be combined under *D. paniculatum*, the name that has priority. Further research of this complex is clearly warranted.

Recent allozyme evidence has indicated that *D. x humifusum* in New England is a hybrid between *D. paniculatum* and *D. rotundifolium* (Michx.) DC. and likely consists of both F<sub>1</sub> and later generation hybrids (Raveill 2002). Because this taxon appears to be a reoccurring hybrid it will not be treated separately in *Steysmark's Flora of Missouri* but because of distinctive morphology and long history of separate consideration, vouchers specimens are cited separately. The hybrid situation in Missouri may be more complex than in New England. Based on field observations in Missouri, *D. glabellum* or *D. perplexum* might also serve as one parent of this hybrid. Since the three species in the *D. paniculatum* complex are very closely related and perhaps conspecific, it would not be surprising if all members of the complex were interfertile with *D. rotundifolium*.

### ***Desmodium canadense* (L.) DC.**

**Adair Co.:** Along N-S RR tracks at junction of Co. Hwy AA and State Hwy 63, just N of Sublette, disturbed prairie remnant, scattered, stems few, ascending, to 2 m tall, with *Spartina*, *Andropogon*, *Liatris*, *Cornus*, *Monarda*, T64N R15W NW1/4 S34, alt 970 ft, 5 Aug 1993, *Yatskievych 93-252* (MO-2 sheets); On roadside, 3.5 mi NW of courthouse in Kirksville, 7 Aug 1973, *Conrad 7292* (MO, NEMO-4sheets, UMO); Along RR, 2.5 mi SW of courthouse in Kirksville, 30 Sep 1967, *Conrad 4364* (NEMO); Along RR, 1 mi N and 2.5 mi W of Brashear, 30 Jul 1982, *Welton s.n.* (NEMO). **Barton Co.:** Dry bank, along RR, near Golden City, 12 Sep 1956, *Palmer 64009* (UMO). **Cass Co.:** Open field, along an old RR, ca 1 mi SE of Belton, 3 Sep 1966, *Henderson 66-884* (KANU, Powell, SMS). **Carter Co.:** US

Hwy 60, Murron Hollow Fen, growing close to little spring branches and into the woods in the NW part of the fen, 1.5–2 m tall, T27N R01E S02, 20 Aug 1995, *Hudson 787* (MO). **Clark Co.:** Along RR, Medill, 7 Jul 1932, *Kellogg 26017* (MO, UMO); Medill, dry prairies, 24 Aug 1920, *Bush 9176* (MO). **Crawford Co.:** Rosati, in open area across street from Rosati Winery, 8 Jul 1982, *Christ s.n.* (MO); Just S of I-44 and N of RR, on E side of Co. KK, in Rosati, low, open, grass area on S and E sides of small man-made pond, with numerous sedges, *Rubus*, *Rhus*, *Rosa*, *Baptisia*, and several prairie species, T38N R5W NW 1/4 S07, alt 1080 ft, scattered, nearly erect, to 2 m tall, several-stemmed from base, corollas bright pink-purple when fresh, 9 Jul 1989, *Yatskievych 89-200* (MO-2 sheets). **Dallas Co.:** Wet meadow bordering spring branch in field, 2 mi N of Pumpkin, 5 Aug 1937, *Steysmark 24270* (MO). **Franklin Co.:** Missouri Botanical Gardens, 19 Jun 1922, *Kellogg s.n.* (MO). **Gentry Co.:** Natural prairie along Rd Z, 2.8 mi W of Berlin, NE 1/4 sect. 33, 20 Jul 1954, *Steysmark 76296* (UMO). **Holt Co.:** Roadside, 1 mi N of US 59 on Co. A, 15 Aug 1967, *Goodnight 134-67*(Powell). **Howell Co.:** 6 mi SW of Will Springs, T26N R10W S08, calcareous fen and margins of old creek slough on Noblett Creek, 31 Aug 1990, *Summers 3690* (MO). **Jackson Co.:** No locality, 31 Aug 1891, *Bush s.n.* (UMO). Prairie Swope Park, 6 Sep 1924, *Saeger s.n.* (Powell); Introduced, Courtney, 31 Jul 1904, *Bush 2147* (MO); Prairies, Lee's Summit, 5 Sep 1906, *Bush 4110* (MO); Courtney, 16 Jul 1906, *Bush 4044* (MO). **Jasper Co.:** Neck City, uncommon in low ground, 1 Aug 1909, *Palmer 2572* (MO); Low prairies, near Oronogo, 22 Aug 1920, *Palmer 18769* (UMO). Dry open ground, Neck City, 16 Aug 1919, *Palmer 15865* (UMO). **Lawrence Co.:** Rocky wooded bank, along spring brook, Cove Spring, 2 mi SW of Spencer, 17 Oct 1956, *Palmer 64588* (UMO). **Livingston Co.:** Thickets, 2 Aug 1937, *Crookshanks 509* (UMO). **Macon Co.:** RR S. of Macon, 3 Aug 1933, *Jeffrey s.n.* (UMO). **Pike Co.:** Eolia, open woods and fields, 30 Aug 1915, *Davis 6177* (MO). **Polk Co.:** Dry open ground, sandy soil, near Graydon Springs, 20 Aug 1956, *Palmer 63721* (UMO). **Randolph Co.:** Along RR by Hwy 63, 0.5 mi S of Renick, 3 Sep 1933, *Drouet 1087* (UMO); Roadside, stripmine vegetation project, T55N R16W S23, 30 Jul 1979, *Conrad 8267* (NEMO). **Saline Co.:** Prairie opening along rd, 1.5 mi E of Sweet Springs, 24 Aug 1934, *Steysmark 14801* (MO, UMO). **Shannon Co.:** Jack's Fork River, ca 3 mi E of bridge at Hwy 17, T27N R6W NE1/4 S05, alt 820 ft, scattered on open gravel bar on S branch of river, with *Platanus*, *Salix*, and *Cornus*, erect, stems unbranched, to 2 m tall, 19 Aug 1989, *Yatskievych 89-302* (MO). **St. Louis Co.:** St. Louis, 29 May 1914, *Emig 276* (MO); Moist places in open woods, Jun 1833, *Engelmann 1070* (MO). **Sullivan Co.:** Upland prairie on ridges and side slopes, locally

common in moist swale, ca 1.5 mi N of Pennville, T64N R18W NE1/4 NW1/4 S05, just S of Putman Co. line at Morris Prairie, 16 Jul 1991, *Smith 3105* (MO). **Webster Co.:** Prairie 0.5 mi W of Marshfield, 27 Aug 1935, *Steyermark 19658* (MO). **Worth Co.:** Prairie, 1 mi S of Irena, 31 Aug 1934, *Steyermark 15078* (MO).

***Desmodium canescens*** (L.) DC.

Without locality, 17 Jul 1900, *Dimitt 221* (UMO); Swampy woods, 26 Jul 1900, *Dimitt 441* (UMO); Swamp, 21 Jul 1900, *Dimitt 342* (UMO). **Adair Co.:** Low ground in valley of old Chariton River and bordering new Chariton River, T62N R16W SW1/8 S27, 2.25 mi S of Youngstown, 19 Sep 1955, *Steyermark 79703* (UMO). **Barton Co.:** Open upland woods, sandy soil, near Bakers, 19 Jul 1955, *Palmer 60763* (UMO). **Bates Co.:** Open upland prairie, 6 mi N of Rich Hill, 25 Aug 1954, *Palmer 58698* (UMO). **Benton Co.:** Thickets along creek, E side of Turkey Creek, T39N R24W S09 and N part of S16, 21 Aug 1956, *Steyermark 82454* (UMO). **Bollinger Co.:** Stream bank, along Crooked Creek, T31N R09W E1/2 S16, 2.25 mi SE of Bessville, 17 Sep 1954, *Steyermark 77607* (UMO). **Boone Co.:** Wooded thicket near old home site at the BFCR parking lot, Rock Bridge State Park, 22 Aug 1988, *Ryan 1014* (UMO); Open grassy area with cedars ca 250 m from BFCR parking lot on trail to bluffs over Gans Creek, Rock Bridge State Park, 25 Aug 1988, *Ryan 1032* (UMO); Bank on West Blvd at Lethrop Rd, Columbia, 18 Aug 1933, *Drouet 977* (UMO); Gab Forests, Columbia, 3 Jul 1903, *Daniels s.n.* (UMO); Tracts 19, 20, 21 18, 14 – along bluffs and streams, Federal Wildlife Area, Ashland, 12 Aug 1937, *Jeffrey 111* (UMO); Rd S of College Ave, Columbia, 24 Aug 1927, *Dickson s.n.* (UMO). **Butler Co.:** Poplar Bluff, 14 Aug 1892, *Dewart s.n.* (MO); Mud Creek Natural Area, Mark Twain National Forest, just W of Stoddard Co. line and ca 2 mi E of Co. Hwy T via dirt rd, ca 7 air mi NE of Poplar Bluff, T26N R7E SW1/4 S26, alt 370 ft, bottomland oak-hickory forest with occasional swampy areas of *Taxodium*, *Populus*, *Acer*, and *Nyssa*, scattered and local in floodplain, erect, 14 Sep 1991, *Yatskievych 91-228* (MO-2 sheets). **Cass Co.:** Vacant lot just S of Nickerson Farms parking lot, weedy slope reseeded in fescue, SW corner of jct US 71 and MO 7, Harrisonville, 04 Sep 1987, *Brooks 18947* (KANU). **Carroll Co.:** Shallow ditch alongside gravel rd, Missouri River bottomland, T51N R23N SE1/4 S18, 17 Aug 1982, *Dierker 829* (UMO). **Cedar Co.:** NE area of co., 30 Jul 1897, *Tre-lease 238* (MO). **Clay Co.:** Moist wooded lowland, 1 mi N of Smithville on U.S. Hwy 169, 28 Aug 1978, *Foster 215* (MWSJ); Old field, Martha Lafite Thompson Nature Sanctuary, Liberty, 24 Aug 1983, *Raveill 1822* (Powell); Near Oakwood, 22 Aug 1915, *Davis 6130* (MO). **Crawford Co.:** Bottomland W of Rainbow

Darter Lodge, Reis Biological Station, 17 Aug 1990, *Conrad 12718* (NEMO). **Dade Co.:** Rocky open woods, near South Greenfield, 14 Sep 1950, *Palmer 51059* (UMO). **Dallas Co.:** Thickets in open slopes by ledges along little Niangua River, 2.5 mi NW of Lunas, 5 Aug 1937, *Steyermark 24203* (MO). **Dent Co.:** Little Piney Creek, dry sand and gravel creekbed, T35N R08W NW1/4 NE1/4 NW1/4 S22, 26 Aug 1992, *Ryan 2078, 2079, 2080, 2081* (MO-4 sheets). **Dunklin Co.:** 26 Jul 1900, *Dimmitt 441* (UMO). **Henry Co.:** Edge of forest, T43N R25W SW1/4 S9, 4 mi E of Shawnee Mound, 1128 NE 301 Rd, 8 mi N/NE of Clinton, 29 Jul 1998, *Krause 301* (WARM); Low weedy waste land, rocky, clay soil, 10 mi E and 1 mi N of Clinton, 23 Aug 1969, *Stephens 36284* (KANU). **Holt Co.:** 0.5 mi E of Mound City near old school house off Rte D on dirt rd, 15 Aug 1967, *Goodnight 167-67* (Powell); Brushy open areas, 4 mi W of Mound City, 27 Aug 1980, *McGregor 31985* (KANU). **Howell Co.:** Calcareous fen and margins of old creek slough on Noblett Creek, 6 mi SW of Willow Springs, T26N R10W S08, 31 Aug 1990, *Summers 3690* (MO); Tingler Lake, 27 Jul 2001, *Summers 9829* (MO). **Jackson Co.:** Sandy bottoms, abundant, 1 Sep 1890, *Bush 25* (MO); Without locality, 1 Sep 1890, *Bush s.n.* (MO); Independence, 3 Oct 1883, *Bush 4* (MO); Courtney, 28 Aug 1930, *Bush 11944* (UMO). **Jasper Co.:** Rocky open woods, near Joplin, 17 Aug 1927, *Palmer 32546* (UMO); Webb City, common in low open ground, 22 Jul 1909, *Palmer 2539* (MO); Dry prairies, Webb City, 28 Jul 1907, *Palmer 1068* (MO); Open woods, Oronog, 23 Aug 1926, *Palmer 31480* (MO); Common in open woods, Webb City, 26 Jul 1903, *Palmer 419* (MO); Dry woods near Midway Park, Joplin, 13 Sep 1909, *Palmer 2697* (MO); Rocky open hillsides, near Forest Mill, 15 Jul 1920, *Palmer 18353* (UMO); Rocky open woods, 4 mi NW of Joplin, 4 Oct 1958, *Palmer 68047-A* (UMO); Common in dry rocky woods and open ground, Joplin, 26 Aug 1919, *Palmer 16115* (KANU, UMO); Open banks, margin of woods, near Carterville, 11 Aug, 1920, *Palmer 18673* (UMO). **Jefferson Co.:** Disturbed prairie, Alexandria Lake, 9 Aug 1973, *Churchill 2315* (MO); Edge of woods, 6.5 mi W of DeSoto, T39N R3E S11, open meadow among woods on ridgetop, cherty substrate above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 38°07'30"N, 90°40'30"W, alt 600 ft, 24 Aug 1986, *Raven 27344* (MO); Grassland in E part of large pasture ca 0.3 mi N of confluence of Parker Creek with Big River, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 190 m, tall, lax perennial herb, 5 Sep 1988, *Raven 27664* (KANU, MO); Open woods on cherty ridgetop, above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W 600 ft, perennial herb with large pinkish

flowers and soft leaves, with *D. paniculatum* and *D. cuspidatum*, 2 Sep 1985, *Raven 26840* (MO); Cut-over shrubby open flats along W side of large pasture due W of reservoir on Parker Creek, N of confluence of Parker Creek with Big River, 6.5 mi W of DeSoto, T39N R03E S02, 38°07'30"N, 90°40'30"W, alt 205 m, perennial, flowers rose-purple, paired bright green glands at base of banner, 11 Sep 1988, *Raven 27695* (KANU, MO); 6.5 mi W of DeSoto, T39N R03E S11, woods near bridge over Parker Creek on dirt Rd, ca 0.5 mi NNE of its confluence with Big River, 38°07'30"N, 90°40'30"W, alt 175 m, perennial herb to 1 m tall, 4 Sep 1988, *Raven 27659* (KANU, MO); Fields, open woods, 6 Sep 1860 *Engelmann 18194 & 18195* (MO-2 sheets); Mastodon State Park, ca 20 air mi S of St. Louis, on W side of Hwy 55 near Imperial, along trail following small creek near picnic area, shaded, alt 450-650 ft or 137-198 m, T24N R06E S20 and N1/2 S21 N, 11 Aug 1985, *Taylor & Nevers 5543* (MO); Wicks, 6 Sep 1887, *Eggert s.n.* (MO); The Cedars, Barnhart, 25 Aug 1919, *Greenman 4463, 4468 & 4475* (MO-3 sheets); Oakville, 1 Sep 1926, *Mathias s.n.* (MO); Kimmswick, 9 Aug 1885, *Wislizenus 84* (MO). **Johnson Co.:** Lower slopes along Clear Creek in Montserrat Recreational Area between Montserrat and Knob Noster, 12 Aug 1937, *Steyermark 24636* (MO); Knob Noster State Park, Lake Buteo dam, 1 Sep 1969, *Castaner 303* (WARM); Lowland in primitive camp and public camp border, 8 Aug 1972, *Mullikin 846* (WARM). **Lawrence Co.:** Rocky open banks, border of woods, Red Mill near Verona, 9 Sep 1952, *Palmer 55951* (UMO); Along rocky wooded bluff of Clear Creek, near Pierce City, 22 Aug 1950, *Palmer 50773* (UMO); Upland prairie, 2 mi E of Mt. Vernon, 15 Aug 1952, *Palmer 54791-A* (UMO); Rocky woods, along small stream, near Clarkson, 15 Aug 1950, *Palmer 50693* (UMO); Dry open ground, along roadside, near Hoburg, 15 Aug 1952, *Palmer 54779* (UMO). **Livingston Co.:** Fountain Grove [Conservation] Area, 12 Aug 1969, *Korschgen s.n.* (UMO). **Madison Co.:** Wooded valley along spring branch, swampy places in alder thickets along spring branch of Wash Creek in narrow valley at base of NW-facing sandstone-chert wooded slopes, T32N R8E S27, 1.25 mi E of Marquand, 17 Sep 1954, *Steyermark 77542* (UMO). **McDonald Co.:** Dry bank along creek, Anderson, 7 Jul 1955, *Palmer 60469* (UMO); Dry open bank along river, McNatt, 15 Aug 1955, *Palmer 60877* (UMO); Open bank, valley of Sugar Creek, Near Lanagan, 27 Jul 1956, *Palmer 63400* (UMO); Open woods, along Indian Creek, 6 mi E of Goodman, 26 Jul 1955, *Palmer 60848* (UMO); Open bank, border of woods, 3.5 mi SE of Jane, 15 Aug 1957, *Palmer 66278* (UMO); Dry bank, open upland, 1 mi E. of Goodman, 9 Aug 1955, *Palmer 60845-A* (UMO); Rocky open woods, 1.5 mi SE of Pineville, 15 Aug 1957, *Palmer*

*66255* (UMO). **Moniteau Co.:** Alluvial thickets along Rd along Moniteau Creek, T46N R14W S27 and S28, 3.5 mi S of Jamestown, 17 Aug 1937, *Steyermark 24840* (MO). **New Madrid Co.:** Low grown, near La Forge, 22 Aug 1933, *Steyermark 8742 & 8847* (MO-2 sheets). **Newton Co.:** Near Nature Center field, George Washington Carver National Monument, 20 Jul 2002, *Bowe 19.02* (SMS); Camp Crowder, rd to transect 31, 27 Aug 1993, *Bradley 347* (SMS); Common in dry soil along railway, Joplin, 4 Aug 1909, *Palmer 2589* (MO); Dry woods, Joplin, 13 Sep 1909, *Palmer 2697* (MO); Open bank along brook, George Washington Carver National Monument, 21 Jul 1957, *Palmer 66198* (UMO); Thicket along brook, George Washington Carver National Monument, 24 Aug 1956, *Palmer 63848, 63849 & 63860* (UMO-6 sheets); Open bank along railway, 5 mi SE of Wentworth, 31 Jul 1956, *Palmer 63409* (UMO); Open bank along fencerow, George Washington Carver National Monument, 19 Aug 1957, *Palmer 66320* (UMO-2 Sheets); Open bank along Hickory Creek, Neosho, 2 Aug 1956, *Palmer 63475* (UMO); Dry open ground along fencerow, George Washington Carver National Monument, 1 Sep 1956, *Palmer 63924* (UMO); Open upland fencerow, George Washington Carver National Monument, 11 Aug 1956, *Palmer 63566* (UMO-2 Sheets); Dry open bank, border of woods, Saginaw, 26 Jul 1956, *Palmer 63318* (UMO); Thickets and fencerows, George Washington Carver National Monument, 25 Aug 1959, *Palmer 68804* (UMO); George Washington Carver National Monument, open bank, 1 Sep 1956, *Palmer 63888* (UMO); George Washington Carver National Monument, dry open ground, along fence-row, 27 Sep 1958, *Palmer 68007* (UMO-2 sheets); Dry open ground, thickets and border of woods, Segment, 2 mi S of Saginaw, 6 Aug, 1952, *Palmer 54638* (UMO); George Washington Carver National Monument, dry open ground, 23 Jul 1958, *Palmer 67432* (UMO-2 sheets); Rocky open woods, along creek, near Possumtrot School, 3 mi SE of Neosho, 12 Aug 1953, *Palmer 56497* (UMO); George Washington Carver National Monument, dry open ground, 19 Jul 1957, *Palmer 66040* (UMO); George Washington Monument, dry ground, along fence-row, 22 Aug 1957, *Palmer 67495* (UMO); Dry open woods, 3 mi SE of Joplin, 21 Aug 1951, *Palmer 53030* (UMO); Open bank, along Hickory Creek, near Neosho, 9 Sep 1954, *Palmer 58846* (UMO); Rocky open hillside woods, near Stella, 31 Jul 1953, *Palmer 56357* (UMO); Upland thickets, 1 mi S. of Granby, 12 Aug 1953, *Palmer 56479* (UMO); Prairie remnant, Camp Crowder, 5 Aug 1994, *Mlekush 719* (SMS). **Oregon Co.:** Mark Twain National Forest, Turner's Mill Access along NE bank of Eleven Point River at end of Forest Rd 3190, ca 8 mi NE of Alton, mesic woods along river, with *Acer, Betula, Quercus, Platanus*, T24N R03W SE1/4 S03, alt 500 ft, 14 Aug 1993,

*Yatskievych 93-283* (MO). **Ozark Co.:** Rocky wooded base of slopes, SW-facing bluffs along Bryant Creek, T24N R12W S01, 4 mi SSE of Rockbridge, 19 Aug 1956, *Steyermark 82351* (UMO). **Phelps Co.:** Little Piney Creek, 6 mi SE of Edgar Springs, gravel bars on Little Piney creek, T35N R08W NE1/4 S21, 30 Aug 1991, *Summers 4633 & 4634* (MO). **Pike Co.:** No locality, 14 Aug 1915, *Davis 6308* (MO). **Platte Co.:** Wooded area N side gravel rd NW of parking lot A site LMB6, 9 Aug 1986, *Laplante 699* (WARM). **Polk Co.:** Alluvial thickets in valley of Pomme de Terre River, T32N R22W S01, 5 mi NW of Pleasant Hope, 1 Aug 1937, *Steyermark 24125* (MO). **Pulaski Co.:** Open alluvial banks along Gasconade River, 2.25 NE of Brownfield, T34N R13W S01, 22 Aug 1937, *Steyermark 25136* (MO); Near ford of stream on FLW Rd D, SE of Cooksville Ford, T34N R12W S13, Parent rock: Chert & Sandstone, Soil: Cedargap cherty silt loam & Gepprock outcrop complex, Vegetation: Elm-ash (floodplain) Forest, Associates: *Ulmus rubra*, *Quercus muhlenbergii*, *Asimina triloba*, 21 Aug 1989, *Ovrebo & Sladewski W0840* (MO); Upper sandstone slopes bordering ravine tributary to Big Piney River, T37N R1W S31, 2 mi NW of Hooker, 26 Aug 1937, *Steyermark 25381* (MO). **Ralls Co.:** Mainland Park, Oakwood, 22 Aug 1915 *Davis 6130* (MO); Oakwood, 2 Aug 1913 *Davis 185* (MO). **Ray Co.:** Roadside embankment, along MO Hwy 13, ca 4 mi S of Polo, 12 Aug 1994, *Henderson 94-749* (MO, Powell); Roadside in full sun, T52N R29W, 21 Aug 1982, *Delozie & Gibbs 112* (Powell-2 sheets). **Reynolds Co.:** Open waste field in alluvial soil near water pump house, Johnson's Shut-ins State Park, 8 Sep 1975, *Nelson 564* (SMS). **Ripley Co.:** Low thickets near Current River, ca 1 mi N of mouth of Buffalo Creek, 5 mi E of Bennett, 6 Aug 1934, *Steyermark 14280* (MO, UMO); Field in valley or river, vicinity of Little Black River, between Brown Ford and Butler Co. line, T24N R04E S28 and 29, 3-4.5 mi NW of Fairdealing, 18 Aug 1955, *Steyermark 79415* (UMO). **St. Charles Co.:** Riverlands Environmental Demonstration Area (REDA), [US Army Corps of Engineers, St. Louis District], Along the Mississippi River, directly across from Alton, Illinois, adjacent to the Melvin Price Lock and Dam (#26), 38°52'00"N, 90°12'30"W, alt 125 m, loosely branched herb up to 1.2 m tall, on levee and in firebreak, common, 22 Aug 1992, *Zhu 1160* (MO); Roadside, MO Hwy 94, S of Weldon Springs, 5 Sep 1987, *Holland 5860* (KANU). **St. Louis Co.:** Disturbed field, floodplain of Missouri River, Creve Coeur Co. Park, Little Creve Coeur Lake and vicinity near ball field section of park on River Valley Drive, 29 Aug 2002, *Summers 9928* (MO). **Scott Co.:** Woody area, 6 Oct 1935, *Kellogg s.n.* (MO). **Shannon Co.:** Jack's Fork River, ca 3 mi E of bridge at Hwy 17, T27N R06W NE1/4 S05, alt 820 ft, scattered on open gravel bar on

S bank of river, with *Platanus*, *Salix*, and *Cornus*, erect, stems unbranched, to 2 m tall, 19 Aug 1989, *Yatskievych & Yatskievych 89-302A* (MO). **St. Clair Co.:** Wah-Kon-Tah Prairie, growing along W side of gravel rd 1001, ca 0.7 mi N of its junction with Hwy 82, ca 4.5 mi N of Eldorado Springs, on the bank of the rd ditch with *Gutierrezia dracunculoides*, T36N R28W E1/2 NE 1/4 NE1/4 SW1/4 S02, 6 Aug 2000, *Thomas 1314* (MO); Open woods, 4 mi W of Appleton City, 20 Aug 1960, *Palmer 69190* (UMO). **St. Francois Co.:** Thickets along small rocky creek, near Bismarck, 4 Sep 1926, *Palmer 31508* (MO). **St. Louis Co.:** No locality, 20 Jul 1887, *Eggert s.n.* (UMO); Right-of-way of the Missouri-Pacific RR, between the Broadway Station and Reilly Avenue, 13 Sep 1958, *Muhlenbach 1489B* (MO); Right-of-way of the Missouri-Pacific RR, between the Broadway Station and Reilly Avenue underpass, 21 Aug 1954, *Muehlenbach 352* (MO); right-of-way of the Burlington RR, N of the elevator of the A.D.M. Company, foot of E Grand, along the connection track to the N St. Louis freight yard of the Burlington RR, small colony, 17 Aug 1963, *Muhlenbach 2164* (MO); Right-of-way of the Frisco RR, crossing with Kings Hwy, at the warehouse of the St. Louis Company, 1338 S. Kings Hwy, one colony, 27 Aug 1972, *Muhlenbach 3781* (MO); Creve Coeur Lake, sandy banks, 24 Aug 1930 *Kellogg s.n.* (MO); Rockwoods tract near Fox Creek, alluvial ground along stream, 31 Aug 1973, *Christ s.n.* (MO); Osage Hills, 28 Aug 1931, *Christ s.n.* (MO), low meadow bordering Gravois Creek, Alton, 9 Sep 1977, *Summers 366* (MO); Valley Park, 12 Sep 1928, *Edmonds s.n.* (MO); Allenton, along Fox Creek, 31 Aug 1973, *Christ s.n.* (MO); St. Louis, open woods, Jul 1836, *Engelmann s.n.* (MO); Grassy ravines, St. Louis Commons, 1 Sep 1841, *Geyer 18184* (MO); Kirkwood, 14 Sep 1913, *Greenwood & Greenwood 3723* (MO); St. Louis, open lots, 22 Aug 1910, *Ohlweiler s.n.* (MO); Prospect Hill, St. Louis, 17 Aug 1894, *Glatfelter s.n.* (MO); Hills of Allenton, 14 Aug 1887, *Eggert s.n.* (MO); Hills of Allenton, 20 Jul 1887, *Eggert s.n.* (MO); Creve Coeur, rich woods, 24 Aug 1950, *Kellogg 15209* (MO); W of Webster, 20 Aug 1910, *Greenman 3825* (MO); Without locality, 10 Aug 1877, *Eggert s.n.* (MO); Horse Creek Rd between the intersection of Rieger Rd and the intersection with Featherston Rd, deciduous forest and roadsides, low, sprawling herb, corollas pink, 14 Aug 1984, *Miller 1996* (MO). **Stoddard Co.:** Low sandy woods along creek, sandy wooded slopes bordering ravines, along and tributary to spring-fed creek near junction of Crowley Ridge and lowland, on property of Mr. Martin, T25N R11E NW1/4 S06, 3.5 mi SE of Bloomfield, 20 Aug 1954, *Steyermark 76759* (UMO). **Stone Co.:** Base of wooded slopes, "Cedar Bluff," SE-facing limestone slopes topped by bluffs along White River, just SW of mouth of Big Creek, T22N R24N S17, 4.5 mi E of Shell Knob, 13 Jul 1956, *Steyermark*

81933 (UMO). **Sullivan Co.:** Upland prairie on ridges and side slopes, locally common in moist swale, just S of Putman Co. line at Morris Prairie, 16 Jul 1991, *Smith & Nigh 3105* (MO). **Texas Co.:** In bottom of limestone canyon, Barn Hollow canyon, 5 mi SE of Arnold, 17 Aug 1934, *Steyermark 14627* (MO).

***Desmodium ciliare*** (Muhl. ex Willd.) DC.

Common in dry soils, 29 Sep 1896, *Mackenzie s.n.* (MO). **Barry Co.:** Exeter, common on prairie, 29 Sep 1896, *Bush 55* (MO); Along Piney Creek Trail, Piney Creek Wilderness, 4 Sep 1988, *Rebman 585* (SMS); Dry woods, 7 Oct 1936, *Bush 15829* (MO); Rocky soil in woods along roadside, 6.5 mi W of Washburn, 15 Oct 1966, *Stephens 10159* (KANU). **Benton Co.:** Rock Hill Prairie, in upland prairie at SE intersection of Hwy 64 & BB, ca 5 mi N of Warsaw, T41N R22W SE 1/4 S22, *Ladd 13372* (MO). **Callaway Co.:** Upland open places on ridge above St. Peter sandstone glade, T46N R8W sect. 18, 3 mi E of Ham's Prairie, 11 Sep 1937, *Steyermark 26172* (MO). **Camden Co.:** Upland oak-hickory wooded region, crest of hill with shallow sandy-clay soil and some surfacing rock, N of Camdenton, 3 mi W jct MO Hwy 5 & MO Hwy 7, 12 Sep 1986 *Brooks 18587* (KANU); 1<sup>st</sup> blacktop to right on Hwy Z, N. off of Hwy 7 (Coffman Bend), 10 Sep 1988, *Harness 58* (MWSJ). **Cedar Co.:** Margin of a woodland, along Co. Rd N, ca 4 mi W of Humansville, 4 Sep 1992, *Henderson 92-430* (MO). **Crawford Co.:** In weedy field behind McDonald's, junction of I-44 and MO Rte 19, Cuba/Owensville exit, 9 Aug 1991, *Vincent & Lammers 5015* (MO). **Dallas Co.:** Cherty upland slopes, 3 mi S of Corky, 20 Jul 1934, *Steyermark 13800* (MO); Xeric cherty upland pasture near Baird House, Bennett Spring State Park, 26 Aug 1981, *Ladd 5486* (SMS); Open cherty upland savanna remnant along hairpin turn at road to 3-loop campground, Bennett Spring State Park, 18 Aug 1981, *Ladd 5401* (SMS); Along Hwy 73, ca 0.9 mi S of Tunas, 28 Aug 2001, *Redfearn 40122* (SMS). **Dent Co.:** Sandy banks, Rhyse, 5 Sep 1927, *Kellogg 941 & 946* (MO-2 sheets); Burned over area of upland oak woods, T34N R4W S20, 5 mi NW of Stone Hill, 6 Aug 1936, *Steyermark 12652* (MO); Dayton, 28 Aug 1909, *Kellogg s.n.* (MO). **Dunklin Co.:** Campbell, 12 Sep 1893, *Bush s.n.* (MO); Malden, 12 Sep 1893, *Bush s.n.* (MO). **Franklin Co.:** Gray Summit, Missouri Botanical Garden Arboretum, along Quarry Rd, 16 Aug 1972, *Shea 275* (MO); Meramec Bend, no date, *Glatfelter s.n.* (MO). **Greene Co.:** 30 yds W of Missouri Pacific RR tracks near gate to Manley Cemetery, Wilson's Creek National Battlefield, *Key 2911* (SMS). **Henry Co.:** Without locality, 8 Sep 1975, *Toney s.n.* (UMO); Cherty upland slopes above limestone bluffs along Grand River, 3 mi NE of Finey, Henry C. near Benton Co. line, 8 Oct 1934, *Steyermark 15947* (MO). **Howell Co.:** Rocky

open woods, logged 3 years ago, acid soil, 3.5 mi N of Brandsville on Co. Rd SE 979, T24N R07W NW1/4 S36, 7 Sep 1993, *Summers 6381* (MO, NEMO); Cherty slope along Rattlesnake Draft, T24N R7W NE1/4 SW1/4 S36, 3.5 mi N of Brandsville, 17 Aug 1980, *Summers 761* (MO); Grassy, brushy fencerow between rd and pasture, 3.5 mi N of Brandsville on Co. Rd SE 979, T24N R07W S35 NE4, 31 Aug 1997, *Summers 8299* (MO). **Jasper Co.:** Dry open ground, gravelly soil, near Alba, 23 Aug 1920, *Palmer 18791* (SMS). **Jefferson Co.:** Grassland in E part of large pasture ca 0.3 mi N of confluence of Parker Creek with Big River, 6.5 mi W of DeSoto, T39N R3E, S11, 5 Sep 1988, *Raven 27670* (KANU, MO); Gentle slopes, wooded with oaks and hickories, below W side of large field due W of reservoir on Parker Creek, ca 0.5 mi N of confluence of Parker Creek with Big River, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 205 m, flowers purple, perennial herb ca 0.5 m tall, 4 Sep 1988, *Raven 27660* (MO). **Johnson Co.:** Woods, Pertle Springs, Warrensburg, 31 Sep 1969, *Castaner 288* (WARM). **Laclede Co.:** Cherty sandstone upper slopes bordering Mill Creek, 5 mi E of Lebanon, 23 Aug 1937, *Steyermark 24214* (MO); Sandy, rocky soil in open oak woods, 12 mi S of Lebanon, 7 Sep 1966, *Stephens 9068* (KANU). **Maries Co.:** Cherty upper slopes along Gasconade River, T40N R9W S10-11, 2.5 mi NE of Vienna, 29 Aug 1937, *Steyermark 25558* (MO); Along RR tracks above wooded ravine, T41N R8W, W part of S 30 and E part of S25, 2-2.5 mi SW of Belle, 16 Aug 1955, *Steyermark 79338* (MO); Prairie on level upland in vicinity of Lane's Prairie, 16 Sep 1934, *Steyermark 15342* (MO). **McDonald Co.:** Without locality, 1 Sep 1893, *Bush s.n.* (MO); Noel, dry woods, 9 Sep 1913, *Palmer 4206* (MO). **Morgan Co.:** Upland oak-hickory openings, 7 mi N of Riverview, 25 Oct, 1936, *Steyermark 20573* (MO); Upland oak-hickory ridge, along Rd H, E of Procter, 2 mi W of jct of H with Hwy 5, 24 Oct 1936, *Steyermark 20531* (MO). **Oregon Co.:** Greer Spring Special Management Area, Mark Twain National Forest, ca 1 mi SE of Greer Spring in a deep hollow E of Hwy 19, old field now taken over by pine, oak, red cedar, and other woody vegetation, T24N R03W N1/2 S06, 7 Sep 1994, *Summers 6997* (MO). **Ozark Co.:** Chert slopes above limestone bluffs along N part of White River N of Double Spring, 4 mi NE of Dormis and 4 mi SE of Dora, 28 Sep 1934, *Steyermark 15604* (MO). **Pettis Co.:** Exposed cherty slopes along Heath Creek, W of Longwood, 6 Oct 1934, *Steyermark 15903* (MO); Pond edge, Paintbrush Prairie Conservation Area, 21 Jun 2001, *Smith & Raveill 1007* (WARM). **Pulaski Co.:** Ranges 1-9, T34N R11W S3, Lebanon silt loam, Bluestem Prairie, 27 Aug 1989, *Ovrebø & Sladewski W0974* (KANU, MO, SMS); Broad ridgetop, SW of Range 29, T34N R11W S07, chert rock, cherty



silt loam, oak savanna, 20 Aug 1989, *Ovrebo W0809* (MO, SMS, WARM); Fort Leonard Wood Military Reserve. Dry gravel bank above slip in hunting area #31, 12 Sep 1996, *George 518* (WARM); Woods below Freeman Cave, 9 Sep 1996, *George & Profitt 1494* (WARM). **Randolph Co.:** Wooded area near Sale Barn, S of Moberly, 14 Sep 1980, *McClaskey s.n.* (NEMO). **Scott Co.:** Sandy ground, 31 Aug 1894, *Eggert s.n.* (MO); Sand Ridge property, N side of co. rd and ca 1 mi of U.S. Hwy 77, ca 4 mi N of Blodgett, T28N, R14E, S28, 21 Aug 1998, *Laatsch s.n.* (MO). **Shannon Co.:** Rocky woods, Montier, 5 Aug 1927, *Bush 11481* (MO); No locality, 12 Sep 1888, *Bush s.n.* (MO). **St. Clair Co.:** Lichen Glade, 1 Sep 1975, *Toney s.n.* (UMO). **St. Louis Co.:** Without locality, 26 Sep 1891, *Eggert s.n.* (MO); Kirkwood, 7 Sep 1913, *Greenman & Greenman 3703* (MO); Windsor Forest, Kirkwood, 28 Aug 1956, (name illegible) *822* (MO); Dry ground, Valley Park, Jun 1896, *Russell s.n.* (MO); Open woods, St Louis, Jul 1833, *Engelmann 1063* (MO); Woods N of Webster, 18 Aug 1891, *Eggert s.n.* (MO); Dry hills, St. Louis, 3 Sep 1878, *Eggert s.n.* (MO); Dry field, 10 Sep 1944, *Chandler 5099* (MO); Open woods, barren, W of St. Louis, Aug 1842, *Engelmann s.n.* (MO). **Stoddard Co.:** Frisco RR, Ozarks, 25 Jul 1896, *Glatfelter s.n.* (MO). **Taney Co.:** Open ridgetop glade, cedar glades and oak-hickory forest, Mark Twain National Forest, Ozark, T23N R18W NW1/4 NW1/4 SW1/4 S14, Gasconade soil, 15 Aug 1977, *Hicks & Roberts 798* (MO); Dolomite and limestone glades, Ruth and Paul Hennign Conservation Area, ca 0.5 mi N of jct of Hwy 376 and 76 near Branson, herb to 80 cm scattered on glades, flowers fading to turquoise, 9 Sep 1998, *Dietrich 497* (MO); Dolomite and limestone glades, Ruth and Paul Hennign Conservation Area, ca 0.5 mi N of jct of Hwy 376 and 76 near Branson, herb to 60 cm, growing along path to Boulder Bald viewing platform, 9 Sep 1998, *Dietrich 482* (MO). **Texas Co.:** Wooded sandstone slopes in ravine tributary to Roubidoux Creek, T32N R12W S2, near Plato, 20 Aug 1937, *Steyermark 25030 & 25031* (MO-2 sheets). **Vernon Co.:** Camp Clark, 10 Aug 1993, *Mattheis 323* (SMS). **Webster Co.:** Along RR tracks next to Hwy 60, 1 mi E of Rogersville, 19 Sep 1974, *Niewald 193* (SMS). **Wright Co.:** Sandstone slopes along Beaver Creek, T31-32 R13W S03&S04, 4 mi N of Manes, 21 Aug 1937, *Steyermark 25091* (MO); Upland chery woods, 6 mi NE of Manes, 20 Aug 1937, *Steyermark 24995* (MO).

***Desmodium cuspidatum*** (Muhl. ex Willd.) DC.  
ex Loudon

**Adair Co.:** Ridge in oak-hickory forest, Sugar Creek State Forest, 6.6. mi SW of Kirksville, 28 Aug 1978, *Conrad 7986* (NEMO-2 sheets). **Barry Co.:** Wood's edge behind Help's Quarters, Roaring River State Park, 17 Aug 1979, *Hornberger 731* (SMS); Along Siloam

Springs Trail in a ravine, Piney Creek Wilderness Area, 11 Sep 1988, *Rebman 680* (SMS); Along Tower Trail, Piney Creek Wilderness Area, 28 Aug 1988, *Redman 540* (SMS); Glade, Tower Grove Trail, Piney Creek Wilderness Area, 28 Aug 1988 *Redman 525* (SMS). **Barton Co.:** Rocky open woods, sandy soil, 3 mi NE of Milford, 22 Aug 1951, *Palmer 53141* (UMO); Open woods, along river, 1 mi W of Nashville, 5 Jul 1952, *Palmer 54379* (UMO); Rocky wooded hillside, sandy soil, along Horse Creek, 3 mi NE off Milford, 22 Sep 1951, *Palmer 53164* (UMO); Open upland woods, 5 mi ENE of Lamar, 6 Sep 1950, *Palmer 50943* (UMO). **Benton Co.:** E side of Turkey Creek, T39N R24W S09 & N part S16, 4.5-5 mi NE of Fristoe, 21 Aug 1956, *Steyermark 82453* (UMO); Common in rocky, chert soil, on densely wooded hillside, 11 mi W of Lincoln, 23 Aug 1969, *Stephens 36298* (KANU). **Boone Co.:** Brushy lots, Jul 1897, *Daniels s.n.* (UMO); Rocky slope in woodland along Spring Brook Trail above stream that parallels trail in SW loop, Rock Bridge State Park, 9 Sep 1989, *Ryan 1425* (UMO); Dry, rocky woods, University Arboretum, Ashland, 14 Sep 1940, *Drew s.n.* (UMO); Ashland Gravel, 30 Jul 1927, *Dickson s.n.* (UMO); Moist oak woods, Federal Wildlife Area, Ashland, 29 Aug 1940, *Knight 126* (UMO); Country Club East, Columbia, 21 Aug 1927, *Dickson s.n.* (UMO); Loess ridge above Missouri River, 3 mi SE of Rocheport, 8 Sep 1933, *Drouet 1117* (UMO); Road S of College Ave., 24 Aug 1927, *Dickson s.n.* (UMO-3 sheets); Old Quarry, 27 Aug 1927, *Dickson s.n.* (UMO). **Butler Co.:** Rocky upland woods, Poplar Bluff, 11 Sep 1919, *Palmer 16355* (MO, UMO). **Callaway Co.:** Wooded limestone slopes along Stinson Creek, T47N R9W S34, 3 mi SE of Fulton, 19 Sep 1937, *Steyermark 26128* (MO). **Camden Co.:** Lodge Glade, Ha Ha Tonka State Park, 16 Aug 1995, *Farnsworth B133* (SMS); Logde Glade, Ha Ha Tonka State Park, 23 Aug 1995, *Farnsworth B472* (SMS); Turkey Penn Hollow Savanna, Ha Ha Tonka State Park, 30 Aug 1985, *Groves 247* (SMS); Lodge Glade, Ha Ha Tonka State Park, 29 Aug 1986, *Groves 277* (SMS); Glade just E of Hwy 54, Osage Beach, 30 Aug 1969, *Redlearn 26555* (SMS). **Cape Girardeau Co.:** Steep wooded mostly acid-soil ravines tributary to Dog Hollow, T11N R14E S29, 2 mi NW of Neely's Landing, 29 Aug 1954, *Steyermark 76981* (UMO). **Cass Co.:** Rich lowland woods near quarry, ca 6 mi SE of Belton on Farm Rd, 1 Aug 1973, *Norton 261/73* (Powell); Flowers white, 31 Aug 1865, *Broadhead s.n.* (MO). **Carter Co.:** Chilton Creek Preserve, above Chilton Creek, 10 Aug 1996, *George s.n.* (WARM); Fort Leonard Wood Military Reserve, Stone Mill Spring, 17 Aug 1996, *George s.n.* (WARM). **Cedar Co.:** Thickets along small stream, near Cedar Springs, 18 Sep 1958, *Palmer 67919* (UMO). **Chariton Co.:** Low wooded slopes in ravine tributary to Little Chariton River, T54N R18W S23, 24 & 26, 2.5



mi NE of Keytesville, 16 Sep 1937, *Steyermark 26463* (MO). **Christian Co.:** Rocky woods, along bluff of Bull Creek, 8.5 mi E of Spokane, 1 Sep 1955, *Palmer 61127* (UMO); Rocky bank, open woods, near Garrison, 2 Sep 1955, *Palmer 61194-A* (UMO). **Dent Co.:** Rhyse, 7 Sep 1927, *Kellogg 942* (MO); Along Current River on steep wooded slope, outside of Montauk State Park by back rd out of park, 28 Aug 1975, *Castaner 4295* (WARM); Roadside of Hwy 119 near old mill, Montauk State Park, 7 Aug 1975, *Maupin 764* (SMS); Waste ground near park dump, Montauk State Park, 6 Sep 1974, *Maupin 819* (SMS, UMO); NE-facing wooded limestone slopes with chert above, along Current River, T32N R07W S26, 0.5 mi S of Montauk State Park, 29 Aug 1954, *Steyermark 76920* (UMO). **Franklin Co.:** Gray's Summit, 25 Aug 1925, *Kellogg 938* (MO); Common in woods and thickets, Meramec State Park, 16 Aug 1937, *Mason s.n.* (UMO). **Grundy County:** Base of slopes of ravine tributary to Medicine Creek, T61N R22W S09, 4.75 mi SW of Humphreys, 20 Sep 1955, *Steyermark 79775* (UMO). **Holt Co.:** Brushy open area, 4 mi W of Mound City, 27 Aug 1980, *McGregor 31981* (KANU). **Howard Co.:** Ravine slope tributary to Salt Fork Creek, 1 mi N of Locust School, T51N R15W S1 & 2, 14 Sep 1937, *Steyermark 26335* (MO). **Iron Co.:** Open woods, Iron Mt. Lake, 28 Aug 1935, *Kellogg 103* (MO); Irondale, 21 Aug 1895, *Glatfelter s.n.* (MO). **Jackson Co.:** Woods, Lees Summit, 5 Sep 1933, *Bush 12985* (UMO). **Jasper Co.:** Carthage, 11 Sep 1910, *Palmer 3163* (MO); Dry rocky woods, Carthage, 18 Sep 1910, *Palmer 3204* (MO); Common in dry woods, Joplin, 13 Sep 1909, *Palmer 2695* (MO); Dry open woods, 4 mi S of Carthage, 28 Aug 1919, *Palmer 16208* (UMO); Open rocky woods, along Lone Elm Hollow Road, 1 mi NW of Joplin, 30 Aug 1960, *Palmer 69225* (UMO); Rocky open upland woods, along Center Creek, near Belleville, 12 Aug 1950, *Palmer 50648* (UMO-2 sheets); Rocky open woods, near Car Junction, 20 Sep 1923, *Palmer 23822* (UMO); Rocky open woods, along Center Creek, near Carl Junction, 31 Aug 1920, *Palmer 18880* (UJMO). **Jefferson Co.:** Dry rocky woods, 8 mi NW of Pevely, 11 Sep 1932, *Steyermark 8579* (MO); Kimmswick, Aug 1885, *Wislizenus 103* (MO); Floodplain of Big River, ca 0.1 above their junction, near rd along S side of Mammoth Creek, 6.5 mi W of DeSoto, T39N R3E S11, 4 Sep 1988, *Raven 27652* (MO); Grassland in E part of large pasture ca 0.3 N of confluence of Parker Creek with Big River, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 190 m, rare perennial herb, flowers lavender, large, 5 Sep 1988, *Raven 27662* (MO); Wooded slopes and flats on dolomitic substrate near Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of Desoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 560 ft, dense inflorescence, perennial, flowers small, 23 Aug

1986, *Raven 27334* (MO); Wooded slopes and flats on dolomitic substrate near Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of Desoto, T39N R3E S11, 23 Aug 1986, *Raven 27335* (KANU, MO); Open meadow among woods on ridgetop with cherty substrate above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, at cabin, 6.5 mi W of Desoto, T39N R3E S 11, 3-4 Aug 1985, *Werff 7431* (MO); Limestone slopes and flats along Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of Desoto, T39N R3E S11, 2 Sep 1985, *Raven 26866* (MO); Open woods on cherty ridgetop, above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of Desoto, T39N R3E S11, with *D. canescens*, *D. paniculatum* var. *paniculatum* and *D. paniculatum* var. *dillenii*, 2 Sep 1985, *Raven 26843* (MO). **Johnson Co.:** Wooded slopes and gullies, Knob Noster State Park, 22 Jul 1965, *Redfearn 17494* (SMS); Wooded slopes along small creek ca 2 mi NW of Post Oak, 21 Jul 1965, *Redfearn 17484* (SMS). **Knox Co.:** Ravines along creek tributary to Middle Fabius River, T62N R10W S03, 4 mi (by air) NE of Knox City, 13 Aug 1955, *Steyermark 79155* (UMO). **Laclede Co.:** Disturbed open upland woods along ridgetop near hatchery assistant residence, Bennett Spring State Park, 6 Sep 1980, *Ladd 4719* (SMS). **Lafayette Co.:** Dry banks, Wellington, 3 Sep 1927, *Bush 11523* (UMO). **Lawrence Co.:** Open upland woods, 3.5 mi SE of Marionville, 29 Sep 1952, *Palmer 55244* (UMO); Border of upland woods, near Aurora, 15 Aug 1950, *Palmer 50753* (UMO); Open upland woods, along small stream, 1.5 mi NE of Miller, 20 Sep 1950, *Palmer 51118* (UMO-2 sheets). **Lewis Co.:** Upper wooded slopes along Middle Fabius River, sect. 25, 4 mi NE of LaBelle, 3 Sep 1937, *Steyermark 25720* (MO). **Maries Co.:** Upper wooded limestone slopes along Gasconade River, 2.5 mi NE of Vienna, T40N R9W S10 & 11, 29 Aug 1937, *Steyermark 25580* (MO); Shaded lower limestone slopes along tributary of Spring Creek, ca 3 mi E of Gasconade River bridge, NW of Vichy, 16 Sep 1934, *Steyermark 15277 & 15317* (MO). **Marion Co.:** Dry woods, N of Hannibal, 1 Sep 1915, *Davis 6295* (MO); Mark Twain Cave, 24 Aug 1915, *Davis 6212 & 2888* (MO); Ravines and bluffs along South Fabius River, T58N R06W S06, 4.75mi SSE of Hester, 11 mi NW of Palmyra, 21 Sep 1956, *Steyermark 82697* (UMO). **McDonald Co.:** Dry woods, Noel, 10 Sep 1913, *Palmer 4255* (MO); Without locality, 1 Sep 1893, no collector (MO). **Moniteau Co.:** Middle portion of wooded limestone slopes along North Noreau Creek, T44N R14W S16 & 17, 3.5 mi S of McGirk, 16 Aug 1937, *Steyermark 24794* (MO). **Montgomery Co.:** New Florence, 20 Aug 1924, *Rice s.n.* (Powell). **Morgan Co.:** Dry, rocky, chert soil at prairie/forest interface, 1 mi W and 4 mi S of Stover, 24 Aug 1969, *Stephens 36332* (KANU).

**Newton Co.:** Rocky open woods, along Tanyard Hollow, 3.5 mi SW of Joplin, 12 Aug 1951, *Palmer 52937* (UMO); Dry rocky woods, Saginaw, 28 Aug 1908, *Palmer 1426* (MO). **Oregon Co.:** Greer Spring Special Management Area, Mark Twain National Forest, 2 mi NE of Greer on S side of Greer Spring Branch below boil, steep N-facing wooded slopes along spring branch, T25N, R04W SW1/4 S36, 15 Aug 1994, *Summers & Borsch 6847* (MO); Mark Twain National Forest, ca 11 mi E of Alton off Hwy AA on Forest Service Rd 4144 to Horse Trail Ride parking lot, in weedy gravel parking lot, T24N R02W S19, 6 Sep 1994, *Summers 6971* (MO); Greer Spring Management Area, Mark Twain National Forest, 4 mi E of Greer on the Eleven Point River at Mary Decker Shoals, gravel bar on S edge of river, T24N R03W NW1/4 S03, 17 Aug 1994, *Summers 6865* (MO); Rocky soil around rim of Grand Gulf, 5 Aug 1961, *Redfearn 8647* (SMS); Wilderness Refuge, 26 Sep 1946, *Dalke s.n.* (UMO). **Ozark Co.:** Rocky wooded base of slopes, SW-facing bluffs along Bryant Creek, 4 mi SSE of Rockbridge, 19 Aug 1956, *Steyermark 82352* (KANU). **Phelps Co.:** Jerome, 14 Oct 1914, *Kellogg 314* (MO); Lower slope along edge of forest S of Bear Creek, Pleasant Hope Wildlife Area, 21 Aug 1974, *Leeland 63* (SMS). **Pike Co.:** Ted Shanks Area-DuPont west, 8 Oct 1974, *Korschgen & Toney s.n.* (UMO); Remnant patches of hill prairie, DuPont Reservation Wildlife Area, N of Ashburn on Hwy 79 along Salt River, 28 Aug 1990, *Bogler s.n.* (MO). **Polk Co.:** Rocky wooded bank, along Pomme de Terre River, near Burns, 18 Sep 1957, *Palmer 66770* (UMO); Rocky bank, along Pomme de Terre River, 1.5 mi N of Burns, 25 Sep 1957, *Palmer 66988* (UMO) Lower slope along edge of forest S of Bear Creek, Pleasant Hope Wildlife Area, 6 Sep 1974, *Keeland 63* (SMS). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3076* (WARM); Laquey, in the vicinity of York Cave, Roubidoux River valley, 1 Aug 1968, *Myers s.n.* (Powell); Scattered and uncommon along gravel rd to Stone Mill Spring, E side of Big Piney River, E side of Hwy. T, Ft. Leonard Wood Military Reservation, T35N R10W SW 1/4 SW 1/4 S21, 17 Aug 1996, *Erickson & George 112* (MO); Lower portion of steep wooded slopes of limestone bluffs, 2.25 mi NE of Brownsfield, T34N R13W S1, 22 Aug 1937, *Steyermark 25129* (MO); Cedar Gap cherty silt loam, Ft. Leonard Army Base, 21 Aug 1989, *Overbo W0840* (SMS). **Putnam Co.:** Wooded ravines and prairie upland openings, tributary to Chariton River, just SE of Mapleton, 3 mi NW of Worthington, T65N R16W NE1/4 S17, 13 Sep 1954, *Steyermark 77230* (UMO) **Ralls Co.:** Ilasco, 13 Aug 1915, *Davis 4859* (MO-3 sheets); Oak hickory woods with much *Ostrya virginiana*, soil well drained, loose loam, rocky in

parts not uniform, much bryophyte cover, much mulch, flowers purple, sparsely scattered, T54N R8W SW1/4 S6, alt 610 ft, 17 Aug 1973, *Hinterthuer 762* (MO); Common, oak/hickory with walnut scattered and common, soil very rocky with loosely packed loam, much mulch, last rd on left before reaching Joanna Bridge, 28 Jul 1973, *Hinterthuer 614* (MO). **Randolph Co.:** Deciduous woods, E of Thomas Hill, T55N R16W S36, 8 Aug 1979, *Conrad 8499* (NEMO); Bottomland deciduous woods, T55N R14W S20, 25 May 1981, *Conrad 9230* (NEMO); Deciduous upland woods and old field W of Baptist church in Thomas Hill, T55N R16W S16, 15 Sep 1979, *Conrad 8765* (NEMO-2 sheets); S side of Hwy 3, E of Middle Fork of Little Chariton River, T54N R16W S2, 3 Aug 1979, *Conrad 8350* (NEMO, UMO); Upland deciduous woods, T55N R15W S19, 20 Aug 1981, *Conrad 9530* (NEMO, UMO). **Ray Co.:** Edge of woodland, along MO Hwy 10, ca 0.25 mi E of Excelsior Springs, 10 Sep 1966, *Henderson 66-945* (Powell). **Reynolds Co.:** Dry creek bed in upland, gentle-sloping woodland, Johnson's Shut-ins State Park, 8 Aug 1975, *Nelson 574* (SMS). **Scotland Co.:** Wooded slopes tributary to and on west side of Bear Creek, 1.75 mi E of Gorin, T64N R10W S15, 12 Sep 1954, *Steyermark 77160* (UMO). **Scott Co.:** Benton, woods, 20 Aug 1933, *Kellogg s.n.* (MO). **Shannon Co.:** Sandy woods, Montier, 8 Aug 1910, *Bush 6144* (MO); Carr Creek State Forest, on W side of Co. Hwy HH at point ca 1.5 mi E and 0.5 mi N of Current River, W side of dirt forest service rd in ravine of slope, scattered, under *Quercus, Ulmus, Carya*, and *Juglans*, T29N R02W NW1/4 S26, 14 Aug 1993, *Yatskievych 93-281* (MO); River bottom, wooded slope and ridge just S of Pulltight Springs, station 33, site 4, Ozark National Scenic Riverways, *Redfearn 1639* (SMS); Alley Spring, 2 Sep 1929, *Rickett s.n.* (UMO). **St. Francois Co.:** Rocky open woods of acid soils on the N slopes of Simms Mt., 2 mi S of Elvin, 3 Sep 1979, *Summers 571* (MO); Rocky open woods, N slopes of Simms Mountain, 2 mi S of Elvins, 4 Sep 1977, *Summers 358* (MO). **St. Louis Co.:** No locality, 4 Aug 1891, *Eggert s.n.* (UMO); No locality, 1 Sep 1891, *Eggert s.n.* (UMO); Clayton, no date, *Goehring 165* (MO); Cliff Cave, 26 Aug 1899, *Norton s.n.* (MO); Rocky hillside, Glencoe, 6 Sep 1935, *Lewis 28* (MO); West Webster, 30 Aug 1915, *Greenman 3224* (MO); Open woods, Mount Airy, St. Louis, Jul 1933, *Engelmann 1069* (MO-2 sheets); St. Louis, 25 Sep 1915, *Drushel 58* (MO); Drake, 4 Sep 1981, *Eggert s.n.* (MO); Rockwoods tract near Fox Creek, dry woods, 31 Aug 1973, *Christ s.n.* (MO); St. Louis, 1889, *Glatfelter s.n.* (MO); Allenton, 30 Aug 1887, *Eggert s.n.* (F); Meramec Highlands, 29 Jul 1905, *Johnson s.n.* (MO); Webster Groves, Sep 1920, *Greenman s.n.* (MO); Forest Park, 4 Sep 1902, *Goehring s.n.* (MO); Hills on Fox Creek, 14 Aug 1891, *Eggert s.n.* (MO); White Cliff Park, city of Crestwood, along tributary of

Gravios Creek, common along edge of trail through woods, stems to 1.5 m tall, T44N R06E 38°33'20"N, 90°22'20"W, alt 570 ft, 29 Aug 1993, *Yatskievych 93-324* (MO). **Stone Co.:** Marble Cave, 11 Sep 1898, *Trelease 1035* (MO). **Taney Co.:** Vicinity of buildings, Bull Shoals Field Station, Drury Refuge, 20 Sep 2001, *Redfern 40247* (SMS). **Texas Co.:** Jacks Fork River, S slope, 1 mi W of Harlow Ford, 30 Aug 1970, *Sutter 235* (MO). **Vernon Co.:** Margin of dry rocky oak-hickory woods, Camp Clark National Guard Area, 18 Aug 1997, *Timme 14652* (SMS); Roadside, 10 mi S of Nevada, 18 Aug 1971, *Hillier 284* (SMS); Margin of dry oak hickory woods, Camp Clark National Guard Area, 6 Sep 1997, *Timme 14624* (SMS). **Warren Co.:** Erect herb with deep pink flowers, on edge of woods, Hwy 47 at Big Creek ca 3 mi N of Warrenton, *Saunders 1174* (MO); Sandstone and limestone slopes and bluffs of Toque Creek, 6-6.5 mi NE of Marthasville, T45-46N R01W S34 & N boundary S03, 22 Aug 1956, *Steyermark 82512* (UMO). **Wright Co.:** Low slopes along Beaver Creek, near Jarret's Ford, 3 mi N of Manes, 21 Aug 1937, *Steyermark 25088* (MO).

***Desmodium cuspidatum* var. *longifolium***

(Torr. & A. Gray) B.G.Schub.

**Boone Co.:** Oak woods, Columbia, Jul 1903, *Daniels s.n.* (UMO). **Clark Co.:** Without locality, 25 Aug 1892, *Bush s.n.* (MO-2 sheets). **Crawford Co.:** 0.5 mi N of Steelvill, 21 Aug 1927, *Shoop s.n.* (MO). **Dent Co.:** Roadside of Hwy 119 near old mill, Montauk State Park, T32N R07W NE1/4 NE1/4 NE1/4 S27, 7 Aug 1975, *Maupin 764* (UMO). **Franklin County:** Common, borders of woods, Meramec State Park, 31 Aug 1936, *Mason s.n.* (UMO). **Gentry Co.:** Low woods along East Fork of Grand River, ca 3 mi NW of Albany, 29 Aug 1934, *Steyermark 15011* (MO, UMO). **Howell Co.:** Low woods and stream bed along creek, 4.5 mi W of Willow Springs on Co. Rd 571 at Lowe's Ford on Indian Creek, T27N R10W SW1/4 S29, 15 Aug 1993, *Summers 6305* (MO). **Iron Co.:** Sharpfield Mountain near Arcadia, 22 Jul 1915, *Greenman 3763* (MO); Pilot Knob, Sep 1897, *Russell s.n.* (MO). **Jackson Co.:** Rocky woods, Swope Park, 6 Aug 1915, *Bush 7729* (MO); Common in woods, Westport, 26 Aug 1895, *Bush 92* (MO); In woods, flower light purple, 4 Aug 1864, *Broadhead s.n.* (MO); Common, Little Blue, 22 Jul 1896, *Bush 512* (MO); Without locality, 20 Aug 1893, *Bush s.n.* (MO); Common on prairie, Grandview, 5 Aug 1902, *Bush 1775* (MO); Rich woods, Kansas City, 26 Jul 1896, *Mackenzie s.n.* (MO). **Jasper Co.:** Open banks, low woods, near Galesburg, 8 Aug 1920, *Palmer 18626* (UMO); Open upland woods, near Oronogo, 23 Aug 1926, *Palmer 31480* (UMO). **Lincoln Co.:** Base of limestone slopes in low thickets of valley along Mill Creek, T51N R01W S28, 3 mi NE of Silex, 8 Sep 1938, *Steyer-*

*mark 26027* (MO). **Macon Co.:** Woods along East Fork of Chariton River, T56N R15W E part S13 & S18, 1.75-2 mi NE of Ardmore, 15 Sep 1954, *Steyermark 77366* (UMO). **Marion Co.:** Rich soil, S of Hannibal, 24 Aug 1915, *Davis 3179* (MO); Deep soil, Mark Twain Cave, 24 Aug 1915, *Davis 6179* [SIC] (MO-2 sheets); Rich bluffs, Hannibal, 9 Aug 1916, *Davis 6711* (MO). **Ralls Co.:** Open woods, 24 Aug 1915, *Davis 6179* [SIC] (MO). **Scotland Co.:** Rich slightly rolling wooded hills along tributary to Little Fox River, on SW side of road, T67N R10W S34, 3.75-4 mi NE of Azen, 11 Sep 1954, *Steyermark 77119* (UMO). **Shannon Co.:** Several plants growing on edge of oak-hickory forest, near bank of Current River, Paint Rock Access of Ozark National Scenic Riverways, ca 5 mi W on dirt rd, from Hwy. D at point 1 mi W of Hwy 21 intersection, approximately 8 mi S of Ellington, T28N R1W SE1/4 NW1/4 S4, 5 Aug 1994, *Darigo 1667* (MO). **St. Clair Co.:** Low thickets at base of slopes bordering valley on E side of Osage River, T39N R24W S03, 3.5 mi N of Iconium, 7 Aug 1937, *Steyermark 24326* (MO). **St. Louis Co.:** Hills, Allenton, 30 Aug 1887, *Eggert s.n.* (MO); Allenton, 5 Aug 1887, *Eggert s.n.* (MO); In Waldern, 14 Aug 1891, *Eggert s.n.* (MO); Hills on Fox Creek, Allenton, 14 Aug 1891, *Eggert s.n.* (MO, 2 sheets); Near Allenton, 30 Aug 1887, *Eggert s.n.* (MO); Glencoe, 16 Aug 1893, *Eggert s.n.* (MO); Webster Groves, Sep 1920, *Greenman 4011* (MO); St. Louis, 1895, *Glatfelter s.n.* (MO); Low woods, St. Louis, Jul 1833, *Engelmann 1068* (MO); Allenton, 10 Sep 1900, *Kellogg s.n.* (MO). **Taney Co.:** Common in woods, Swan, 30 Sep 1899, *Bush 684* (MO). **Vernon Co.:** Roadside 10 mi S of Nevada, T34N R31W SW1/4 S8, 18 Aug 1971, *Hillier 284* (UMO).

***Desmodium glabellum* (Michx.) DC.**

**Audrain Co.:** Along S and SE facing exposed limestone bluffs along South Fork of Salt River, T53N R8W S33, 2.5 mi S of Santa Fe, 15 Sep 1954, *Steyermark 77404* (MO). **Barry Co.:** Dry woods, 10 Sep 1935, *Bush 15146* (MO); Dry chert forest/flatwoods, ridgetop, fire tower trail, T22N R27W NW1/4 S26, 14 Sep 1979, *Hornberger 863* (MO, SMS); Low woods, along Tower Trail, 28 Aug 1988, *Rebman 532* (SMS). **Barton Co.:** Sandstone ledges, along Horse Creek, 1 mi E of Milford, 14 Oct 1957, *Palmer 68178* (UMO). **Boone Co.:** Flat Branch, Columbia, 29 Aug 1901, *Favor s.n.* (UMO); Wasteland and old fields, federal wildlife area, Ashland, 29 Aug 1940, *Knight 121* (UMO); Old field, University Arboretum, Ashland, 14 Sep 1940, *Drew s.n.* (UMO); High rocky woods, 1 mi N of Claysville, 30 Sep 1933, *Drouet 1299* (UMO); Tract 20-21, federal wildlife area, Ashland, 26 Aug 1937, *Jeffrey 174* (UMO). **Butler Co.:** Mud Creek Natural Area, Mark Twain National Forest, just W of Stoddard Co. line and ca 2 mi E of Co. Hwy

T via dirt Rd, ca 7 air mi NE of Poplar Bluff, T26N R07E SW1/4 S26, alt 370 ft, bottomland oak-hickory forest with occasional swampy areas of *Taxodium*, *Populus*, *Acer*, and *Nyssa*, erect herbs to 1 m tall, scattered, petals purple, 14 Sep 1991, *Yatskievych 91-241* (MO); W-facing sandstone bluff outcrops with chert above, along Indian Creek just below jct of West and East Prongs, T25N R07E NW1/4 S06, 6 1/2 mi NNE of Poplar Bluff, 29 Oct 1956, *Steyermark 83314* (KANU, UMO). **Callaway Co.:** Environmental study vouchers, Union Electric Callaway Plant, 21 Sep 1975, *Dunn & Ellis 22081* (UMO); Environmental study vouchers, Union Electric Callaway Plant, 15 Sep 1974, *Dunn & Ellis 21388* (UMO); Environmental study vouchers, Union Electric Callaway Plant, 23 Aug 1974, *Ness & Cool F-1-22* (UMO); Environmental study vouchers, Union Electric Callaway Plant, 14 Sep 1974, *Dunn & Ellis 21359, 21427, 21443, 21449, 21453, 21458* and *Ellis & Dunn 241, 318* (UMO); Rocky limestone slopes near Aux Vasse Creek, T46N R08W S20, 3.5 mi W of Reform, 11 Sep 1937, *Steyermark 26191* (MO); Common in old field, T46N R11W S28, 24 Aug 1940, *Drew s.n.* (UMO). **Carter Co.:** Clubhouse, 9 Sep 1897, *Trelease 235* (MO). **Cedar Co.:** Open bank, 6 mi SE of Cedar Springs, 16 Sep 1958, *Palmer 67944* (UMO); Sandy, disturbed soil along Cedar Creek, 16 mi SE of Eldorado Springs, 6 Sep 1966, *Stephens 9031* (KANU). **Christian Co.:** 0.5 mi W of Swan lookout tower, 20 Aug 1961 *Richmond 356* (UMO); Bank, open rocky woods, 3 mi SE of Branner, 14 Oct 1954, *Palmer 59121* (UMO); Dry open ground, near Ozark, 6 Oct 1956, *Palmer 64424-A* (UMO). **Clay Co.:** Martha Lafite Thompson Nature Sanctuary, Liberty, 21 Sep 1893, *Raveill 1941* (Powell). **Cooper Co.:** Hills of Lamine River on Hwy 50, 10 Sep 1934, *Kellogg s.n.* (MO); Rocky woods, 10 Sep 1934, *Bush 13905* (MO); Hills of Lamine River on Hwy 50, 8 Sep 1934, *Kellogg s.n.* (MO). **Crawford Co.:** Upland oak/hickory Ozark woodlands draining gradually to the N, understory sparse and perhaps grazed, a few open, grassy glades in the vicinity and the roadside ditch is moist from local seepage, soil sandy-clay, T39N R30W NW1/4 SE1/4 S21, 7 Oct 1990, *Brooks 20524* (KANU, MO); Steelville, 24 Sep 1898, *Trelease 1033* (MO). **Dade Co.:** Bona Glade Natural Area, 1 mi W of Bona on Hwy 215, T33N R25W SE1/4 SE1/4 S32, 2 Sep 1985, *Collett 4* (MO); Bona Glade Natural Area, 1 mi W of Bona on Hwy 215, T33N R25W SE1/4 SE1/4 S32, 14 Sep 1985, *Collett 55* (MO, SMS); Rocky open woods, along small stream, 3 mi E of Pennsboro, 14 Sep 1950, *Palmer 51079* (UMO); Rocky slopes below bluffs of Little Sac River, 1.5 mi W of Bona, 24 Sep 1952, *Palmer 55185* (UMO). **Dent Co.:** Burned over area of upland post oak woods, 5 mi NW of Stone Hill, T34N R4W S20, 6 Aug 1936, *Steyermark 12665* (MO); Layton, 28 Aug 1909, *Kellogg s.n.* (MO);

Rocky woods, Rhyse, 5 Sep 1927, *Kellogg 940 & 947*(MO); Woods, Rhyse, 5 Sep 1927, *Kellogg 25778* (UMO). **Douglas Co.:** Upper cherty slopes along Spring Creek, near Big Spring, near Roosevelt, T25N R11W S26 & S27, 17 Jul 1937, *Steyermark 23309* (MO). **Dunklin Co.:** Malden, 12 Sep 1893, *Bush s.n.* (MO). **Franklin Co.:** Gray Summit, Missouri Botanical Garden Arboretum, forest W of Quarry Rd, 1972 Pollination study, 16 Aug 1972, *Shea 274* (MO); Common, dry woods, Meramec State Park, 12 Sep 1937, *Mason s.n.* (UMO). **Howard Co.:** Upland woods tributary to Salt Fork Creek, 1 mi N of Locust School, T51N R15W S01 & S02, 3 mi NE of Burton, 14 Sep 1937, *Steyermark 26324* (MO). **Howell Co.:** Tingle Lake, 2001, *Summers 9830 & 9856* (MO); Sims Valley Community Lake, ca 7 mi E of Willow Springs on Hwy 60, then 2.5 mi N on Hwy RA, edge of dry oak-hickory woods on E side of lake, T27N R08W S17, 6 Sep 1998, *Summers 8936* (MO); West Plains, 20 Sep 1939, *Leopold s.n.* (UMO). **Iron Co.:** Dry woods, Pilot Knob, Sep 1897, *Russell s.n.* (MO); Shady woods, Iron Mountain Lake, 28 Aug 1927, *Kellogg s.n.* (MO). **Jackson Co.:** No locality, 3 Sep 1892, *Bush s.n.* (UMO); 1 Sep 1890, *Bush s.n.* (MO). **Jasper Co.:** Spring River, 18 Sep 1898, *Trelease 1032* (MO); Dry woods near Myers Spur, Webb City, 11 Sep 1909, *Palmer 2676 & 2751* (MO); Dry prairies and open woods, Webb City, 11 Sep 1909, *Palmer 2678* (MO); Dry woods near Midway Park, Joplin, 13 Sep 1909, *Palmer 2694 & 2696* (MO-4 sheets); Dry woods near lakeside park, Webb City, common, 2 Sep 1909, *Palmer 2615* (MO); Joplin, Dry woods, 13 Sep 1909, *Palmer 2696* (MO); Rocky open woods, along Center Creek, near Belleville, 12 Aug 1950, *Palmer 50645* (UMO); Rocky open woods near Carl Junction, 20 Sep 1923, *Palmer 23798* (UMO). **Jefferson Co.:** Open woods on cherty ridgetop, above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 600 ft, perennial, flowers medium sized, rose on inside, paler outside, 24 Aug 1986, *Raven 27347* (MO); Woods near bridge over Parker Creek on dirt rd, ca 0.5 mi NNE of its confluence with Big River, 38°07'30"N, 90°40'30"W, alt 175 m, perennial herb, flowers deep violet, the banner with dark lines, paired green nectaries at base of banner, 6.5 mi W of DeSoto, T39N R3E S11, 4 Sep 1988, *Raven 27658* (MO); On dry hillside below Sandy Ridge, 4 mi W of Pevely, 11 Oct 1930, *Steyermark 492* (MO). **Laclede Co.:** Lightly shaded xeric chert, Poverty Ridge Savanna, high quality savanna tract along E side of Hwy. OO, ca 0.5 mi S of Flatwoods Church, 25 Sep 1981, *Ladd 5751* (SMS); Steep open chert gravel slope in open oak-hickory savanna remnant along the Oak Hickory Trail, Bennett Spring State Park, 2 Sep 1981, *Ladd 5596* (SMS). **Lawrence Co.:** Open banks of railway cut through Pennsylvanian sandstone, 2mi SE

of Aurora, 25 Aug 1953, *Palmer 55609* (Powell); Sandy open bank, in railway cut through Pennsylvanian sandstone, 2 mi SE of Aurora, 25 Aug 1953, *Palmer 56644A* (UMO); Rocky open woods, along small stream, 2 mi S of Verona, 9 Sep 1952, *Palmer 55067* (UMO); Open upland woods, 2.5 mi SW of Marionville, 13 Oct 1950, *Palmer 51345* (UMO); Open upland woods, along small stream, 1.5 mi NE of Miller, 20 Sep 1950, *Palmer 51127* (UMO). **Lincoln Co.:** Dry cherty sandstone slopes of ravine tributary to Mill Creek, T51N R01W S28, 3 mi NE of Silex, 8 Sep 1937, *Steyermark 26017* (MO); Hedemen Springs and vicinity, tributary to and along Big Creek, T48N R01W S20, 6.5-7 mi SW of Troy, 7 Oct 1956, *Steyermark 82948* (UMO). **Maries Co.:** Roubidoux sandstone ledges along spring branch of Paydown Spring, near Paydown, 13 Oct 1935, *Steyermark 19923* (MO). **Morgan Co.:** Open woods, 4 Sep 1934, *Bush 13827* (MO). **Newton Co.:** Open bank, border of woods, 3.5 mi S of Christopher, 29 Oct 1954, *Palmer 59303* (UMO). **Oregon Co.:** Mark Twain National Forest, Whiten Ford Access on bank of Eleven Point River at end of dirt rd running N from W end of Co. Hwy AA, ca 9 mi NE of Alton, mesic wooded area along river, scattered colonies, with *Alnus*, *Umus*, *Platanus*, *Acer*, *Quercus*, T24N R02W NW1/4 S18, alt 480 ft, 21 Aug 1993, *Yatskievych 92-312* (MO); Rocky woods, near Alton, 11 Sep 1937, *Kellogg s.n.* (MO). **Ozark Co.:** Common in dry chert woodland, Caney Mountain Conservation Area ca 6 mi NNE of Gainesville, LBE plot 4, herb to 70 cm, flowers red, 10 Oct 1998, *Dietrich, 534* (MO). **Pettis Co.:** Cherty upper slopes above limestone bluffs along Lake Creek, T44N R20W S12 & S13, 1-1.5 mi S of Lutman, 3 Oct 1938, *Steyermark 21423* (MO). **Phelps Co.:** On soils over sandstone in upland woods, Mark Twain National Forest, King Sink woodland restoration area, E of King Sink, ca 6 mi SE of Devil's Elbow, T36N R09W E1/2 S36, 12 Aug 1992, *Ladd 16790* (MO); In upland woods, Mark Twain National Forest, Bradford Branch woodland restoration area, ca 4 mi S of Flat, S of Ledbetter Hollow, T35N R09W S04 & S05, 29 Jul 1992, *Ladd 16740* (MO); In clayey, upland flatwoods at N end of area, Mark Twain National Forest, Hwy P woodland restoration area, S of Hwy P, ca 0.5 mi W of Hwy AA, T36N R10W NE1/4 S12, 24 Jul 1992, *Ladd 16736* (MO); Jerome, 7 Oct 1914, *Kellogg 315* (MO); Jerome, 14 Oct 1914, *Kellogg 300* (MO). **Pike Co.:** Wooded open clayey slopes along tributary to Grass Creek, T54N R2W S20, 5 mi W of Louisiana, 6 Sep 1937, *Steyermark 25896* (MO); Aberdeen, 12 Sep 1911, *Davis 959* (MO); S-facing wooded slopes of Long Knob, with cherty eroded slopes and limestone escarpment, T53N R01W S15 & S14, 4-4.5 mi SW of Clarksville, 5 Oct 1956, *Steyermark 82784 & 82785* (UMO). **Polk Co.:** Rocky wooded hillside, near Burns, 18 Sep 1957, *Palmer 66803* (UMO); Woods, Graydon Springs,

Camp Wakahni, 15 Aug 1962, *Eggers 339* (SMS). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3073* (WARM); Crocker, 1928, *Child s.n.* (MO); Sandstone slopes bordering ravine tributary to Gasconade River, T37N R11W S31, 2 mi NW of Hooker, *Steyermark 25394* (MO); In dry upland woods, Mark Twain National Forest, Bald Ridge Creek, ca 2.5 mi NE of Evening Shade, T34N R11W SE 1/4 S35 & SW 1/4 S36, 11 Aug 1992, *Ladd 16777* (MO). **Ralls Co.:** Dry Bluffs, 13 Aug 1915, *Davis 4871* (MO); Rocky upper wooded slopes along Salt River, T55N R06W S34, 1.5 W of Spalding, 4 Sep 1937, *Steyermark 25837* (MO); Ilasco, 13 Aug 1915, *Davis 4871* (MO); Upper cherty slopes above bluffs along Salt River, between Shepherds and Hog Fords, T55N R07W S24 & S26, 5.5 mi W of Center, 5 Sep 1937, *Steyermark 25855* (MO). **Reynolds Co.:** In pine-oak upland wooded slopes along ravine above Kelly Spring, 2 mi S of Oates between West Fork and Centerville, stem red, leaves roughish, growing with # 19770 [*D. laevigatum*], 22 Sep 1935, *Steyermark 19771* (MO); Upland sinkhole pond, Lily Pond Natural Area, T31N R01E NW1/4 S23, W of Hwy V, and N of Redford, 14 Sep 1979, *Haefner 1628* (UMO); East Fork near Lesterville, 18 Aug 1927, *Rickett s.n.* (UMO); Woods near Monterey, 31 Aug 1929, *Rickett s.n.* (UMO). **Shannon Co.:** Montier, common, 30 Jun 1894, *Bush 86* (MO); Rocky woods, Montier, 2 Sep 1918, *Bush 8759* (MO); Vicinity of Rocky Creek Falls, R02W T28N S18, alt. ca 750-920 ft, station 30 site 1, 20 Sep 1969, *Redfearn 1518* (MO); Cherty slopes of Round Mt, 3 mi SW of Midridge, T30N R03W S10, "shut ins," 27 Sep 1936, *Steyermark 20158* (MO). **St. Clair Co.:** Wooded sandstone slopes along N side of Osage River, 2 mi N of Oyer, S of Monegaw Springs, 3 Oct 1936, *Steyermark 20244* (MO); Upland slopes near Little Monegaw Creek near Monegaw Springs, 3 Oct 1936, *Steyermark 20208* (MO). **St. Francois Co.:** Bismarck, 10 Sep 1893, *Bush s.n.* (MO); St. Joe State Park, ca 1 mi S of Elvins, scattered small limestone glades in dry oak-hickory forest just W of bicycle staging area at NW end of park, T36N R05E SW1/4 S19, alt 950, scattered in small seep crossing trail in shade, stems arching, nearly erect, 3 Sep 1989, *Yatskievych 89-354* (MO). **St. Louis Co.:** No locality, 28 Aug 1877, *Eggert s.n.* (UMO); Webster, 18 Aug 1891, *Eggert s.n.* (F); Valley Park, 9 Sep 1887, *Eggert s.n.* (MO); Woods, Forest Park, 28 Aug 1877, *Eggert s.n.* (MO); Woods near Allen, 21 Aug 1891, *Eggert s.n.* (MO); Woods near Drake, 4 Sep 1891, *Eggert s.n.* (MO); Sandy woods near South Webster, 18 Aug 1891, *Eggert s.n.* (MO); Pacific, 19 Sep 1898, *Thompson s.n.* (MO); Low meadow bordering Gravios Creek, Affton, 9 Sep 1977, *Summers 369* (MO); Valley Park, 9 Sep 1888, *Eggert s.n.* (MO); Meramec Highlands, 4 Sep

1892, *Dewart s.n.* (MO); Cliff Cave, a white flowered form, 7 Sep 1900, *Kellogg s.n.* (MO). **Taney Co.:** Swan, 30 Sep 1899, *Bush 679* (MO); Rich woods, Swan, 24 Sep 1905, *Bush 3411* (MO); Dolomite and limestone glades, Ruth and Paul Henning Conservation Area, ca 0.5 mi N of jct of Hwy 376 and Hwy 76 near Branson, herb to 1 m, scattered in limestone woodland, flowers purple, 9 Sep 1998, *Dietrich 506 & 510* (MO); Cedar glades and oak-hickory forest, Mark Twain National Forest, 19 Jun 1977, *Hicks 584* (SMS); Around spring-fed pond, Brury Conservation Area, 11 Sep 1999, *King 242* (SMS). **Texas Co.:** Jacks Fork River, 1-1.5 mi W of Harlow Ford, 30 Aug 1970, *Sutter 218* (MO); Cherty uplands around limestone pinnacles at "the narrow" along East Fork of Piney River, between East and West Forks, 3 mi SW of Houston, 27 Sep 1934, *Steyermark 15501* (MO, UMO); Sandrock soil in open woods, 5 mi NE of Success, 8 Sep 1966, *Stephens 9153* (KANU). **Vemon Co.** Margins of woods, Camp Clark, 6 Sep 1997, *Timme 14640* (SMS). **Warren Co.:** Dry cherty slopes above St. Peter Sandstone bluffs along Charrette Creek, ca 9 mi SE of Warrenton, 4 Oct 1934, *Steyermark 15850* (MO). **Wayne Co.:** E-facing slope in oak/hickory stand on E side of Corps Rd 17 at Sulphur Springs, Jun 18 2002, *Pocklington 166* (MO). **Washington Co.:** Washington State Park bordering Big River, T39N R03E S22 & S23, 8 mi NE of Old Mines, 27 Sep 1954, *Steyermark 77832* (UMO); Upland acid cherty slopes in headwaters of Bates Creek, W of rd, 6 mi NE of Belgrade, T36N R02E S04, 27 Sep 1954, *Steyermark 77840 & 77850* (UMO). **Wright Co.:** Near Smittle Cave, 3 Sep 1927, *Rickett s.n.* (UMO); Upland cherty ground above sinkhole, 2 mi NW of Norwood, T28N R14W S01, 20 Oct 1954, *Steyermark 78001* (UMO).

***Desmodium glutinosum*** (Muhl. ex Willd.) Alph. Wood

Without locality, 28 Jul 1891, *Douglass s.n.* (MO). **Adair Co.:** Rich deciduous woods, 5.8 mi S of Kirksville, 30 Jun 1968, *Conrad 4779* (MO, NEMO); Deciduous woods, 4.8 mi SW of Kirksville, 3 Sep 1968, *Conrad 5006* (NEMO). **Andrew Co.:** Along edge of woods, Honey Creek Wildlife Area, 26 Aug 1972, *Galloway 2214* (MWSJ). **Barry Co.:** Shallow, rocky soil, 15 mi SE of Casseville along N shore of Table Rock Reservoir on State Rte 86, 13 Sep 1975, *Brown s.n.* (MWSJ); N Fire lane Baumgardt Property, Hwy 86 E, 15 Jun 1970, *James 982* (Powell); Shaded, dry W-facing slope, River Trail, Roaring River St. Park, T22N R27W SE 1/4 S27 and NE1/4 S34, 26 Jun 1979, *Hornberger 438* (MO); Dry chert forest in natural area, Roaring River State Park 25 Jul 1979, *Hornberger 626* (SMS); Edge of woods along Rd 39-1, 29 Jun 1988, *Rebman 348* (SMS); Growing along the Buck Hollow, 19 Jul 1988, *Rebman 1069* (SMS); NW-facing wooded slope along Roaring River,

Roaring River State Park, 24 Jun 1961, *Redfearn 8438* (SMS); Mark Twain National Forest, 8 mi S and 1.5 mi E of Cassville, 14 Jul 1998, *Morse 2688* (KANU). **Ben-ton Co.:** Area of park entrance in prairie-like area, rocky soil, 21 Jun 1985, *Baldwin 51* (Powell). **Boone Co.:** Rocky woods above Gans Creek on path that branches right off the BFCR to Bluffs Trail, Rock Bridge State Park, 5 Aug 1989, *Ryan 1360* (UMO); Columbia, 27 Jul 1924, *Rice s.n.* (Powell). **Buchanan Co.:** Road to River Trail, Camp Gieger, Boy Scout Reservation, 4 mi N of St. Joseph, no date, *Zimmerman s.n.* (MWSJ); W boundry road, Bluff Woods, 6 Jul 1977, *McCann 169* (MWSJ); Biology Study Area, Missouri Western State College, 30 Aug 1996, *Walker 10* (MWSJ). **Butler Co.:** Poplar Bluff, 14 Aug 1892, *Dewart s.n.* (MO). **Camden Co.:** Border of a woodland, on the Mauss Farm, E of exposure, T39N R19W S25, 29 Aug 1969, *Myers s.n.* (Powell); Slopes of the Niangua River, 19 Sep 1974, *Conrad 3344* (MO); Lower spring, Ha Ha Tonka State Park, 20 Jun 1995, *Farnsworth B283* (SMS). **Callaway Co.:** Environmental Study Vouchers, Union Electric Callaway Plant, 14 Sep 1974, *Ellis & Dunn 211* and *Dunn & Ellis 21388* (UMO); Environmental Study Vouchers, Union Electric Callaway Plant, 23 Aug 1974, *Ness & Cool F-1-43, F-3-30 & F-4-23* (UMO); Kucera Woods, ridge area, 15 mi S of Fulton, 17 Jul 1975, *Ellis 879* (UMO). **Cass Co.:** Rich lowland woods near quarry, ca 6 mi SE of Belton on a farm rd, 27 Jun 1973, *Norton 113-73* (Powell); Woods, 15 Aug 1865, *Broadhead s.n.* (MO). **Carter Co.:** Chilton Creek Preserve, head of Kelly Hollow, 31 Jul 1996, *George s.n.* (WARM). **Christian Co.:** Rocky soil of oak-hickory woods, slope above James River near Shelf Cave T38N R 22W S34, 10 Jul 1981, *Redfearn, 32710* (MO, SMS). **Clay Co.:** Roadside, 1 mi N of Smithville, on US 169 Hwy, 9 Jul 1976, *Weaver 76-126* (Powell); Open woods, 9 Aug 1933, *Bush 12850* (MO); Rich woods, 26 Jul 1933, *Bush 12759* (MO). **Crawford Co.:** Without locality, 10 Jul 1926, *Woodson 673* (MO). **Dent Co.:** Wooded N-facing lime slopes along spring branch of Twin Springs, between Stone Hills and Indian Trail State Park, 4 Aug 1936, *Steyermark 12504* (MO); Steep W-facing wooded slope above Current River, Ozark Scenic Riverways, 13 Sep 1969, *Redfearn 1233* (SMS); Moist ravine, Mountauk State Park, 5 Jul 1974, *Maupin 680* (SMS). **Douglas Co.:** Shade of virgin hardwood forest, natural bridge area near Peterson Azalea Reserve, near Ava, 23 Jun 1974, *Raven 26350* (MO). **Franklin Co.:** Dry *Quercus-Carya* woods, 0.8 mi W of the jct of Co. Rd K and Rte 185 on Rte 185 (ca 7 mi E of Sullivan), 38°12'N 91°05'W, alt 250 m, petals pink, 12 Aug 1989, *Solomon 18773* (MO); Gray Summit, forest W of Quarry Rd, 1972 pollination study, 7 Jul 1972, *Shea 233* (MO); Entrance to Spy Rock Hollow, ca 2 mi NE of Cass, 8 Jun 2000, *Redfearn 39857* (SMS). **Greene Co.:** Base of steep

wooded slope, James River, S of Lake Springfield, 18 Jun 1975, *Redfearn 30873* (SMS); Sink areas just E of Springfield near Cherry Street, 29 Jun 1963, *Redfearn 12597* (Powell, SMS); Shaded, N riverbank 0.25 mi W of dam along James River, 14 Jun 1972, *Brockman 375* (SMS); Along wooded slope NE of Lake Springfield, 7 Jul 1958, *Redfearn 3725* (SMS); Upland woods, Springfield Nature Center, 23 Sep 1986, *Humphrey 236* (SMS); Open, rocky hillside in woods, Hwy 65 off Christman Rd, 17 Jun 1974, *Nelson 312* (SMS). **Henry Co.:** Edge of forest, 4 mi E of Shawnee Mound, at 1128 NE 301 Rd, 8 mi NNE of Clinton, T43N R25W SW1/4 S09, 1 Jul 1998, *Krause 238* (WARM). **Holt Co.:** Wooded hillside, 3 mi W of Fillmore, Oct 1979, *Puett s.n.* (MWSJ); Powerline cut, 3 Jul 1986, *Priesendorf 423* (WARM). **Iron Co.:** Igneous woods, Buford Mt., common, T35N R03E N1/2 NE1/4 S21, 2 Jul 1993, *Anderson MO125* (MO). **Jackson Co.:** Lake Jacomo Study Site, 10 Jun 1972, *Thomson 72-29* (Powell); Dry woods, Courtney, 16 Jul 1915, *Bush 7685* (MO). **Jasper Co.:** Frequent in rich bluff, Joplin, 18 Jul 1909, *Palmer 2898* (MO); Rich woods, Joplin, 4 Jul 1902, *Palmer 129a & 2498* (MO); Rich woods, Webb City, 23 Jul 1910, *Bush 6025* (MO). **Jefferson Co.:** Kimmswick, 5 Jul 1885, *Wislizenus 83* (MO); Rocky woods, 12 Sep 1973, *Christ s.n.* (MO); Victoria, 1 Jul 1891, *Douglass s.n.* (MO); Along Mammoth Rd, 1.4 mi S of State Rd H, S of Hillsboro, 38°10'N 90°42'W, 250m., herb, corollas pink, fruits green, 12 Jul 1990, *Miller, Janus & Rohrbach 5370* (MO); Wooded slopes and flats on dolomitic substrate near Parker Creek, ca 0.35 mi NNE of it confluence with Big River, 6.5 mi W of DeSoto, T39N R3E S11, 38°07'30"N, 90°40'30"W, alt 170 m, rare, 22 Aug 1987, *Raven 27609* (MO). **Johnson Co.:** E side of entrance to Camp Bobwhite area under shingle oak, Knob Noster State Park, 26 Jul 1983, *Merck 61* (Powell); Woods by Lake Buteo, Knob Noster State Park, 29 Jun 1975, *Castaner 4161* (MO, WARM); Steep slope in dense woods, opposite end to the eastern portion of Camp Bobwhite, 1 Jul 1972, *Mullikin 702* (WARM); Woods by Lake Morel, Knob Noster Park, 18 Jun 1985, *Castaner 9539* (WARM). **Knox Co.:** Rich woods along Corn Creek, between Novelty and Plevna, 29 Jun 1933, *Palmer & Steyermark 40944* (MO). **Laclede Co.:** E side of Bennett Spring Branch along Bluff Trail, Bennett Spring State Park, ca 11 mi NW of Lebanon on State Hwy 64, T35N R17W S31 SW1/4, alt 900 ft, common along creek bank in dense understory of mesic forest with *Rubus*, *Toxicodendron*, several twining legumes, and grasses, 9 Jul 1989, *Yatskiyevych 89-186* (MO); Wooded area along river at base of bluff, upstream of Davis Mill Bridge, S of Lebanon, 29 Jun 1977, *Hugh s.n.* (SMS). **Lafayette Co.:** Ravine, Huscher's farm, 0.125 mi W of Higginsville on FF, N of Sharp's Cemetery, 22 Jul 1983, *Smith 88* (Powell). **Lawrence Co.:** Rocky wooded hill-

side, 3 mi N of Lawrenceburg, 26 Jun 1951, *Palmer 52416* (UMO); Pleasant Township near Clarkson Big Spring, 9 Jun 1953, *Palmer 56067* (KANU). **Lincoln Co.:** Near path in woods, Lincoln Lake, Cuivre River State Park, flowers rose colored, frequent, 28 Jun 1970, *Kennell s.n.* (MO); 1.5 mi from jct of EE & Y, NW of Winfield, W of Foley, near Cuivre River State Park, pink flowers, herb, basal cauline leaves only, 19 Jul 1978, *Niblett 615* (MO). **Linn Co.:** Hillside of lake T57N R21W NE1/4 NE1/4 NE1/4 S14, 20 Jun 1985, *Priesendorf 105* (WARM). **Macon Co.:** Woolly Acres Training Site, [Missouri National Guard], 19 Aug 1995, *Weber 79* (SMS); Woolly Acres Training Area, Missouri National Guard, 12 Jul 1997, *Pinkston 243* (SMS). **Maries Co.:** Wooded slope, Clifty Creek, E of Shantytown, 8 Jul 1967, *Redfearn 21667* (SMS). **Marion Co.:** Dry bluffs, N of Hannibal, 15 Jul 1916, *Davis 3888* (MO); N of Hannibal, 24 Jul 1915, *Davis 4655* (MO); N of Hannibal, 15 Jul 1916, *Davis 3888* (MO); Riverview Park, Hannibal, 8 Jul 1912, *Davis 3941* (MO). **McDonald Co.:** Hillside woods, Noel, 13 Sep 1913, *Palmer 4324* (MO); Without locality, 1 Sep 1893, *Bush s.n.* (MO); Lower wooded slope along N bank of Elk Creek, just W of Hwy 43 and ca 2.5 mi SE of Tiff City, 10 Jun 1962, *Redfearn 10232* (SMS). **Miller Co.:** Rich woods along Bolin Creek between Sudheimer and Iberia, 4 Jul 1934, *Steyermark 13030* (MO); Edge of intermittent stream, Lake of Ozarks State Park, 26 Jul 1985, *Nagel 360* (SMS). **Monroe Co.:** Rare in oak woods on rocky limestone soil on steep SW slope, Mark Twain State Park, alt ca 660 ft, T54B R8W SE1/4 S9, flowers pink, 21 Jun 1974, *Hudson 592* (MO). **Newton Co.:** Upland forest, Ridge Rd, Camp Crowder, *Mlekush 178* (SMS); Bottomland forest, lake area, S section, Camp Crowder, 25 Jun 1993, *Mlekush 629* (SMS); Dry woods, Neosho, 22 Jun 1913, *Palmer 3994* (MO). **Oregon Co.:** Path to waterfall, Grand Gulf State Park, 8 Jul 1989, *Orr 132* (SMS). **Phelps Co.:** Bank of spring branch, Maramec Spring, Maramec Spring Park (James Foundation property), on N bank of Meramec River just S of old iron works, on W side of Hwy 8, ca 6 mi E of St. James, 19 Jun 2001, *Sappington s.n.* (MO); Arlington, rich woods, 8 Jul 1928, *Kellogg s.n.* (MO). **Pike Co.:** Ted Shanks Area-DuPont, 9 Jul 1973, *Korschgen & Toney s.n.* (UMO); Dense woods, Falicon farm, near Clarksville, 26 Jun 1917, *Davis 7592* (MO); Reservoir, pasture in maple woods, near Clarksville, 1 Aug 1947, *Etter 47-242* (MO). **Platte Co.:** 0.5 mi NE of Parkville on Crooked Rd, 6 Jul 1966, *Dusing s.n.* (Powell); Wooded area W edge of pond-like slough, site LMB6, 13 Sep 1986, *Laplante 832* (WARM). **Polk Co.:** Woods, Graydon Springs Camp, 15 Aug 1962, *Eggers 339* (SMS); Bordering spring branch, Camp Fire Girls camp at Graydon Springs ca 2 mi S E of Eudora, 22 Jun 1962, *Eggers 171* (SMS); Woemmel Farm, NW of Bolivar, 31



Aug 1988, *Woemell s.n.* (SMS). **Ralls Co.:** banks of streams, W of Hannibal, 21 Jul 1915, *Davis 4644* (MO); W of Salt River, T55N R7W SE 1/4 S12, 20 Jun 1974, *Hudson 570* (MO); Rich woods, Oakwood, 21 Jul 1915, *Davis 4644* (MO); Oak hickory woods, very rocky, light penetration fairly great, soil light loam, on edge of stand, scattered along roadside, T55N R7W NW1/4 S35, flowers purple, 29 May 1973, *Christ 460* (MO). **Randolph Co.:** Low ground along Silver Spring Creek, 2 mi S of Huntsville, 3 Sep 1933, *Steyermark 9418* (MO); Upland deciduous woods, T55N R15W S19, 19 May 1981 *Conrad 9133* (NEMO); S side of Hwy 3, E of the Middle Fork of Little Charition River, T54N R16W S02, 3 Aug 1979, *Conrad 8341* (NEMO). **Reynolds Co.:** One plant in oak woods on ridge near Sutton's Bluff, R1W T32N S12, ca 3 mi NW of Centerville, 4 Jul 1970, *D'Arcy 4646* (MO); N-facing slope, Johnson's Shut-ins State Park, 28 Jun 1975, *Nelson 506* (SMS). **Saline Co.:** Oak-hickory woodland, Van Meter State Park, 26 Jun 1959, *Marsh 1625* (KANU). **Shannon Co.:** In woods around glade, Bear Hollow Bluff, Ozark National Scenic Riverways, 25 Aug 1992, *Skinner 4917* (SMS); Belew Hollow Bluff 24 Jun 1992, *Skinner 4331, 4348* (SMS); Steep, S facing, wooded slope, N bank of Jacks Fork River, Vicinity of Alley Springs, T29N R05W SE 1/4 S25, alt ca 680-840 ft, Station 4 Site 4, 11-12 Jul 1969, *Redfearn, Pyrah, Watkins & Witherspoon 532* (MO, SMS); Middle Load Hole area, Ozark National Scenic Riverways, 24 Jun 1992, *Skinner 3951* (SMS); On dry ridgetop, along roadside & campsite; disturbed area, Middle Load Hole Bluff, Ozark National Scenic Riverways, 19 Aug 1992, *Skinner 4762* (SMS); Ridge, Owls Bend, Current River, 7 Aug 1976, *Pope s.n.* (SMS). **St. Clair Co.:** Dense woodland, at the boy scout camp, ca 12 mi E of Osceola, 6 Jul 1973, *Henderson 73-83* (Powell). **St. Francois:** Open woods, Koester, 20 Jun 1948, *Chandler 2715* (MO). **St. Louis Co.:** No locality, 12 Aug 1875, *Eggert s.n.* (UMO); Allenton MO, without date, *Letterman s.n.* (MO); Allenton, 2 Aug 1910, *Ohlweiler s.n.* (MO); Creve Coeur Lake, 19 Aug 1905, *Johnson s.n.* (MO); Along forestry trail, Rockwoods Reservation, frequent, flowers rose colored, leaves crowded toward top of stem, without date, *Kennell s.n.* (MO); Fern Glen, 4 Jul 1931, *Christ s.n.* (MO); On W facing slope in rich woodlands, Pea Shooter Gulch, ca 1 mi S of Manchester Rd & Old State Rd, pink flowers, herb to 1 1/2 ft tall, 3 Aug 1978, *Saunders, Niblett & Bell 842* (MO); Tyson old field IB (35.2a.001) 0.75 mi from main gate of Tyson Research Center, Hwy 44 and Eureka, level loam soils in small valley along rd, old field, 13 Jul 1986, *Langendoen & Feiser 165* (MO); Growing in a wooded ravine ca .05 mi S of pond, 6 Jul 1970, *Marvin 100* (MO-2 sheets); Floodplain forest projected, T47N R7E NE1/4 SW1/4 SE1/4 S9, 20 Jul 1979, *Orzell 153* (MO); Woods, St.

Louis, 15 Jul 1875, *Eggert s.n.* (MO); M. Joseph Deduce Trail, Greenfield State Park, off Allenton Rd, N of Hwy 44, ca 30 air mi W of St. Louis, 19 Jun 1988, *Taylor 5777* (MO); Shady, fertile woods, St. Louis, Jun 1833, *Engelmann 1067* (MO); St. Louis, 1895, *Glatfelter s.n.* (MO); Shady, fertile woods, St. Louis, Jun 1833, *Engelmann 1067* (MO); Rieger Rd near edge of Babbler State Park, flowers pink, 11 Jul 1978, *Gentry 510* (MO); Frequent on stream bank, Rock Hollow, 0.25 mi S of Old State Rd. on Lowlerford Rd, alt 600 ft, flowers pink, understory herb, 6 Jul 1978, *Solomon, Bell & Niblett 385* (MO); Open woods between Tara Hills subdivision and Gravois Creek, Affton, 9 Sep 1977, *Summers 370* (MO); Disturbed hillside beneath oak, hickory woodland, roadside along Meramec River, 1 mi W of jct Co. F and Co. Hwy 30, 20 Jul 1978, *Poston, Bell & Niblett 660* (MO); Woods, St. Louis, 15 Jul 1875, *Eggert s.n.* (MO); Oak-hickory forest, Dr Edmund A. Babler Memorial State Park, 38°37'29"N, 90°42'38"W, tall herb with corollas light purple, 26 Jun 1998, *Stone 1260* (MO); Creve Coeur Lake, 4 Jun 1905, *Johnson s.n.* (MO). **Taney Co.:** Moist woods with slight slope, along main branch of Mincy Creek, Drury Conservation Area, 20 Jun 2000, *Moody-Weis 369* (SMS); Common in woods, Swan, 1 Oct 1899, *Bush 695* (MO); Low woodland along trail from parking lot, White River Balds Natural Area, 8 Jun 1991, *Lathrop 153* (SMS). **Texas Co.:** Along Jacks Fork River, vicinity of Buck Hollow, 0.25 mi E of Hwy 17, 27-29 Jun 1969, *Pyrah 115 & 281* (Powell, SMS); Springy ground in woods, Plato, 10 Jul 1913, *Emig 28* (MO); Scattered along narrow gully, along Jacks Fork River, vicinity of Buck Hollow, 27 Jun 1969, *Pyrah 221* (SMS); Mature gravel bar, S side of Jacks Fork River, upstream from Hwy 17 bridge, 1 Jul 1970, *Witherspoon 400* (SMS). **Vernon Co.:** Oak-hickory forests, 1 mi W of Virgil City, T34N R29W, 1 Jul 1963, *Redfearn 12602* (Powell, SMS); Nevada, Jun 1888, *Pammel s.n.* (MO); Camp Clark, Missouri National Guard, Transect 5, 23-24 Jul 1993, *Matheis 209* (SMS); In rocky, dry oak-hickory woods, Camp Clark National Guard Area, just E and SE of Nevada and E of Hwy 71, 14 Aug 1997, *Timme 14501* (SMS); Oak-hickory woods, Camp Clark National Guard Facility, 16 Jul 1998, *Timme 15566* (SMS). **Washington Co.:** In shade of oak-hickory forest on modest W-facing slope, along Hwy 104, Washington State Park, SW of Desoto, 3 Jul 1973, *Davidse 3484* (MO); Shady forest, T38N R02E NW1/4 S15, 21 Jun 1986, *Manning 48* (MO).

***Desmodium x humifusum*** (Muhl. ex Bigelow)

L.C.Beck

**Carter Co.:** Cherty pine, covered slopes along slopes adjacent to Ten Mile Creek, 7 mi SE of Ellsinore, T25N R4E S7, 13 Jul 1936, *Steyermark 11727* (MO); Upland cherty pine forest, Chilton Creek Preserve, ca 5

mi N of Van Buren, 37°4'15"N 91°4'43"W, 14 Oct 1999, *Heumann 1268* (MO). **Howell Co.:** Tingle Lake, 2001, *Summers 9852 & 9857* (MO). **Jasper Co.:** Pro-cumbent and trailing, in rocky woods, 5 mi SE of Carthage, 4 Sep 1910, *Palmer 3161* (F, MO). **Pulaski Co.:** Dry cherty upper slopes above bluffs, NW- and N-facing wooded limestone bluffs with chert above, along Gasconade River, W of Portuguese Point, T37N R11W S 26 and 27, 6-7 mi (by air) SSW of Dixon, stems trailing, 10 Sep 1956, *Steyermark 82538* (F, MO); Open rocky woods on steep SE-facing talus slope below Gasconade River bluffs, upslope of gravel rd and W of MO Hwy 28, T37N R11W S36, plant prostrate, 16 Sep 1990, *Raveill 2834* (WARM). **Shannon Co.:** Sandy woods, Montier, 6 Aug 1910, *Bush 6118* (MO); Fremont pinery restoration site, ca 2 mi E of Winona, growing in open upland pine woods, Mark Twain National Forest, 36°58'13"N 91°17'14"W, 25 Aug 1999, *Heumann 1235* (MO); Sandy places, Montier, 10 Oct 1910, *Bush 6414* (MO). **Texas Co.:** N-facing wooded slope, ca 0.25 mi S of Jack's Fork River and ca 100 yards E of Hwy 17, 24 Jul 1976, *Pope s.n.* (SMS).

***Desmodium illinoense* A. Gray**

**Adair Co.:** RR tracks beside Hwy 63, 2 mi N of Laplate, 10 Jul 1932, *Drouet 35* (UMO). **Audrain Co.:** Centralia, 23 Jul 1924, *Rice s.n.* (Powell). **Barry Co.:** Open soil along Hwy 37, 1 mi N of Seligman, 22 Jul 1968, *Redfearn 24537* (Powell, SMS); Prairie remnant between Hwy 37 and RR tracts, 3 mi S of Washburn, T21N R28W S9, 3 Jul 1989, *Summers 2959* (MO). **Bar-ton Co.:** In mud of intermittent stream, Prairie State Park, ca 5.5 km N of Mindenmines, T32N R33W SE1/4 SE1/4 S22, 11 Jul 1996, *Timme 13310* (MO); Upland prairie, near Wimmer Siding, 3 mi SE of Liberal, 2 Jul 1951, *Palmer 52469* (UMO). **Callaway Co.:** Tucker Prairie, a tall grass prairie 17 mi E. of Columbia, on the S. side of I-70, rolling terrain with generally poor drainage, prairie #5, 14 Jul 1975, *Ellis 803* (UMO); Virgin prairie, 3 mi W of Kingdom City, 11 Jun 1940, *Drew s.n.* (UMO); N end of Tucker Prairie experimental area, 17 mi E. of Columbia, 4 Aug 1961, *Dunn 13977 & 14006* (UMO); Few plants along draws, County Road Prairie, 1 mi E of Eastville, 24 Jun 1933, *Drouet 557* (UMO); Found scattered on native Tucker Prairie, 8 Jul 1961, *Brown 131* (UMO); County Road Prairie, E. of Eastville, 1 Jul 1933, *Drouet 601* (UMO). **Cass Co.:** Dry grassy roadside, jct of 71 Hwy and Hwy 58, W of Raymore, 6 Jul 1973, *Norton 155/73* (Powell); Open prairie, along a RR, ca 1 mi E of Benton, 18 Jul 1966, *Henderson 66-610* (Powell, SMS); Dry-mesic upland prairie, ca 3.0 mi NW of Archie, T43N R32W NW1/4 S24, Dorsett Hill Prairie Conservation Area, 26 Jun 1987, *Smith 2527* (MO); Upland prairie, along RR, 0.5 mi E. of Strasburg, 10 Jun 1956, *Palmer 63179* (UMO); Roadside, 4 mi S of

50 Hwy on AA, 17 Jul 1977, *Costigan 160* (WARM). **Christian Co.:** Dry open upland, 1 mi W of Billings, 19 Jun 1954, *Palmer 57877* (UMO). **Clark Co.:** Along RR, Medill, 7 Jul 1932, *Kellogg 26016* (UMO). **Clinton Co.:** Converse, 12 Jul 1930, *Bush 11855* (MO, UMO). **Crawford Co.:** Cuba, 29 Jul 1928, *Kellogg 1820* (MO-2 sheets); Along RR tracts E of Rosati, 7 Jul 1976, *Christ s.n.* (MO). **Dade Co.:** Open upland, sandy soil, Lockwood, 6 Jul 1957, *Palmer 65900* (UMO). **DeKalb Co.:** Prairie along RR tracts, ca 2 mi W of Amity, 28 Aug 1934, *Steyermark 14949* (MO, UMO); Upland prairie and open banks along roadsides, 3 mi W of Santa Rosa, 6 Jul 1933, *Palmer & Steyermark 41364* (MO). **Greene Co.:** Remnant prairie along RR tracks, T30N R23W S05, ca 1 mi NW of Pearl on Hwy 123, 29 Jun 1989, *Currier 89-38* (MO); Willard, 16 Jul 1888, *Blankinship s.n.* (MO); Without locality, 16 Jul 1888, *Weller s.n.* (MO); Without locality, 21 Sep 1893, *Bush s.n.* (MO). **Hanison Co.:** Upland prairie, Dunn Ranch, 5 mi W of Eagleville, T66N R28W NW1/4 SE1/4 S32, 2 Jul 1991, *Ladd 15114* (MO); Along fence in ditch, along Hwy 123, 28 Jun 1974, *Nelson 328* (SMS). **Henry Co.:** Without locality, 15 Aug 1892, *Link s.n.* (UMO). **Jackson Co.:** Without locality, 6 Jul 1892, *Bush s.n.* (UMO); Prairie, 9 Jul 1864, *Broadhead s.n.* (MO); Prairie, Lee's Summit, 2 Sep 1895, *Bush 94* (MO); With locality, 3 Sep 1892, *Bush s.n.* (MO); Without locality, 15 Jul 1887, *Bush s.n.* (MO); Without locality, 20 Aug 1893, *Bush s.n.* (MO). **Jasper Co.:** Dry prairies, Oronogo, 20 Jun 1909, *Palmer 2280* (MO-2 sheets); Rocky upland prairies, near Duenweg, 7 Aug, 1920, *Palmer 18538* (UMO); Rocky open ground, near Alba, 23 Aug 1920, *Palmer 18817* (UMO); Rocky open ground, near Carterville, 3 Jul 1920, *Palmer 18215* (UMO); Upland prairie, 1 mi S. of Duenweg, 15 Jun 1952, *Palmer 54290* (UMO); Infrequent on dry prairies, Webb City, 5 Jul 1903, *Palmer 463* (MO). **Johnson Co.:** Open field, 5.5 mi N of Warrensburg, 5 Jul 1975, *Castaner 4196* (MO); Open field, 5.5 mi N of Warrensburg, 4 Jul 1994, *Castaner 11274* (MO, WARM) & 5 Jul 1975, *Castaner 4196* (WARM). **Knox Co.:** Along RR, 2.5 mi E of Edina, 8 Jul 1982 *Welton s.n.* (NEMO). **Lawrence Co.:** Dry sandy bank, in RR cut through Pennsylvanian sandstone, 1.5 mi SE of Aurora, 22 Jul 1957, *Palmer 66151 & 66151-A* (UMO); Upland prairie and thickets, between Stotts City and Mt. Vernon, 7 Jul 1950, *Palmer 50301* (UMO-2 sheets); Upland prairie, along RR, between Aurora and Marionville, 6 Jul 1951, *Palmer 52564* (UMO); Upland prairie, near Marionville, 13 Jul 1955, *Palmer 60538* (UMO-2 sheets). **Lewis Co.:** Prairies and open thickets near Monticello, 26 Jul 1933, *Palmer & Steyermark 40675* (MO). **Marion Co.:** Dry bluffs, Riverside Cemetery, Hannibal, 14 Jul 1917, *Davis 8216* (MO-2 sheets). **Newton Co.:** Upland prairie, along RR, 2 mi S. of Wentworth, 25 Jul 1951, *Palmer 52779* (UMO-2 sheets); Upland prairie, 2 mi NE of Diamond, 12 Jun

1956, *Palmer 63835* (UMO); Open bank, along roadside, 4 mi NW of Diamond, 17 Jun 1957, *Palmer 65637* (UMO). **Nodaway Co.:** Grassy RR right-of-way, 1.5 mi SW of Burlington Junction, 25 Aug 1938, *Singleton 275* (UMO). **Pettis Co.:** Friendly Prairie, 9 mi S. of Sedalia, on Hwy 65, 1.5 mi W on gravel rd, a native virgin prairie, 6 Jul 1974, *LeDoux 1737* (UMO); Grandfather Prairie Conservation Area, 9 mi SSW of Sedalia, 13 Jul 1998, *McCauley 300* (MO); Grandfather Prairie Conservation Area, 5 Aug 1998, *McCauley 377* (WARM); Paint Brush Prairie Conservation Area, 14 Jul 1995, *Castaner 11575* (WARM). **Phelps Co.:** Natural prairie, T36N R7W S17, 10 mi SE of Rolla, 2 mi W of Elk Prairie, 20 Jul 1951, *Steyermark 72172* (MO). **Ralls Co.:** Meadows, Oakwood, 2 Aug 1913, *Davis 2185* (MO), Upland prairies between Center and Perry, 27 Jun 1933, *Palmer & Steyermark 40731* (MO); RR prairie along Hwy 36 between Monroe City and Co Rte J, T56N R7W, 26 Jun 1994, *Winter 7* (NEMO). **Randolph Co.:** RR right-of-way, 2 mi N of Moberly on Hwy 63, 8 Jul 1965, *Mahler 4020* (MO). **Ray Co.:** Upland prairie remnant, section 4, 5 mi N of Knoxville, 24 Jun 1938, *Steyermark 6116* (MO). **St. Clair Co.:** Taberville Prairie, 26 Jul 1975, *Toney s.n.* (UMO); NW section of Taberville Prairie, 1.5 mi E of Appleton City on Hwy 52, 2 mi S of Hwy A, and 7 mi S on Hwy H, 26 Jul 1979, *Castaner 5865* (MO); Taberville Prairie, 11 Jul 1978, *Castaner 5357* (WARM). **Taney Co.:** White River Balds Natural Area, 31 Jul 1991, *Lathrop 181* (SMS). **Vernon Co.:** Roadside embankment, along US Hwy 71, ca 1 mi N of Horton, 26 Jun 1965, *Henderson 65-442* (KANU, MO, Powell, UMO); Dry-mesic disturbed prairie associated with cemetery, 8 Aug 1981, *Reese 1259* (SMS); Dry-mesic prairie near limestone outcrops, 5 Jul 1985, *Reese 1785* (SMS).

***Desmodium laevigatum*** (Nutt.) DC.

**Bary Co.:** Eagle Rock, common, 18 Sep 1896, *Bush 33* (MO); Eagle Rock, dry woods, 20 Sep 1896, *Mackenzie 140* (MO). **Bollinger Co.:** Upper part of cherty slopes of ravine, 18 Sep 1954, *Steyermark 77715* (MO); Vicinity of two small sinkhole ponds, mature to old second growth dry-mesic chert forest dominated by scarlet and white oak, T29N R8E S14, 2 Sep 1994, *Rowan 1140* (MO); Fears Bluff bordering Mingo Swamp, T28N R9E S16 & E part S17, 3.5-4 mi SW of Greenbrier, 18 Sep 1954, *Steyermark 77715* (UMO). **Boone Co.:** Open grassy field with scattered trees off BFCR trail one half way to the bluffs, Rock Bridge State Park, 5 Aug 1989, *Ryan 1362* (UMO). **Carter Co.:** Along Big Brushy Creek between Devils Run and Horseshoe Valley, 29 Oct 1954, *Steyermark 77965* (UMO); Chilton Creek Preserve, Intersection Rds 26 & midrange, 26 Jul 1996, *George s.n.* (WARM-2 sheets). **Christian Co.:** Head of ravine slopes in cherty woods,

tributary to Bull Creek, T25N R20W S21, 2 mi S of Saunders, 10 Jul 1937, *Steyermark 23203* (MO). **Douglas Co.:** Dry lower pine-oak woods along creek, Hell Hole Hollow, tributary of Indian Creek, bordered by sandstone and limestone bluffs, T26N R11W S20 and S21, 4 mi SE of Topaz, 18 Aug 1956, *Steyermark 82313* (UMO). **Dunklin Co.:** Sandy and gravelly wooded E-facing slopes, Crowley's Ridge, 6.5-7 mi NW of Malden, T23N R09E S26, 30 Oct 1956, *Steyermark 83352* (UMO). **Franklin Co.:** Upland oak-hickory forest, 0.5 mi W of Fisher Cave parking lot on old, unused asphalt rd, T40N R02W SE1/4 SE1/4 S01, alt 740 ft, 24 Oct 1996, *Darigo & Sullivan 2746* (MO). **Howell Co.:** Upper sandstone slopes along Little Indian Creek, T27N R10W S07, 6-7 mi NW of Willow Springs, 20 Jul 1937, *Steyermark 23449* (MO). **Iron Co.:** Dry woods, Pilot Knob, Sep 1897, *Russell s.n.* (MO). **Oregon Co.:** Along Little Hurricane Creek, vicinity of "Blue Hole", T24N R03W S4 & 5, 2 1/2-3 mi E (by air) of Greer, 23 Jul 1955, *Steyermark 78887* (UMO); Wilderness refuge, 26 Sep 1946, *Dalke s.n.* (UMO). **Ozark Co.:** Cherty upper slopes along spring branch tributary to Turkey Creek, T23N R15W S17, 2 mi NE of Hammond, 1 Jul 1937, *Steyermark 22820* (MO). **Phelps Co.:** Rocky open woods, 2 mi W of Mill Creek Valley, T36N R10W S24, 1 Oct 1991, *Summers 4720* (MO); In open, previously burned, upland woods, Mark Twain National Forest, King Sink woodland restoration site, E of King Sink, ca 6 mi SE of Devil's Elbow, T36N R9W E1/2 S36, 15 Sep 1992, *Ladd 16827* (MO); "Natural Bridge" and vicinity along creek tributary to Kaintuck Hollow, T36N R9W NE1/4 S16, 4.5-4.75 mi SSW of Newburg, 11 Sep 1956, *Steyermark 82571* (UMO). **Pike Co.:** Ted Shanks Area, 12 Sep 1974, *Toney & Korschgen s.n.* (UMO). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3076* (WARM); Bald Ridge woodland restoration area, W of Bald Ridge Creek, ca 2.5 mi NE of Evening Shade, Mark Twain National Forest, in recently treated wildlife area on ridge at N end of unit, T34N R11W SE 1/4 S 35 & SW1/4 S36, 11 Aug 1992, *Ladd 16784* (MO); Upper sandstone slopes above bluffs along Gasconade River, T37N R11W S31, 2 mi NW of Hooker, 26 Aug 1937, *Steyermark 25380* (MO). **Reynolds Co.:** Upper cherty wooded slopes in semi-open places at head of ravine above Kelly Spring, 2 mi S of Oats, between West Fork and Centerville, leaves light glaucous beneath, pale green above, in more shaded places, 22 Sep 1935, *Steyermark 19770* (MO, UMO). **Ripley Co.:** Cherty pine-covered upper slopes along Current River between Harvs Club House and Bay Mill, 10 mi NW of Doniphan, 18 Oct 1936, *Steyermark 20494* (MO); Cherty upper slopes along escarpment of Current River, just S of Doniphan, 18 Oct 1956, *Steyermark*

20473 (MO); ca 1/2 way up cherty limestone slopes, along Black River, near ford NE of Shed School upriver on NW facing slopes (limestone bluffs with chert above) to first ravine with slough, T30N R02E S07, S12, and S01, 7 mi SE of Redford, corolla deep rose, 22 Aug 1948, *Steyermark 66036* (F). **Shannon Co.:** No locality, 12 Sep 1888, *Bush s.n.* (UMO); Rocky open woods, Montier, 2 Sep 1918, *Bush 8761* (MO); Cherty slopes of Round Mt. near shut-ins, 3 mi SW of Midridge, T30N R3W S10, 27 Sep 1936, *Steyermark 20157* (MO); Rocky slopes, vicinity of Rocky Creek Falls, Ozark National Scenic Riverways, 20 Sep 1969, *Redfern 1531* (SMS); Ridge Westerly exposure, ca 0.75 mi W of Two Rivers Campground and 0.125 mi from Hwy V, station 57 site 7, 12 Aug 1976, *Pope s.n.* (SMS). **Ste. Genevieve Co.:** Pickles Spring, 6 Sep 1928, *Kellogg 1819* (MO). **St. Clair Co.:** Lichen Glade [Conservation Area], 1 Sep 1975, *Toney s.n.* (UMO). **St. Francois Co.:** Rocky open woods, N slopes of Simms Mountain, 2 mi S of Elvins, 4 Sep 1977, *Summers 353* (MO). **St. Louis Co.:** No locality, 26 Sep 1891, *Eggert s.n.* & 3 Sep 1878 *Eggert s.n.* (UMO). **Stoddard Co.:** Holly Ridge [Conservation Area], 13 Oct 1976, *Toney & Korschgen s.n.* (UMO); Dry woods in ravine on level ground, Crowley's Ridge, near Ardeola school, near Ardeola, 8 Nov 1936, *Steyermark 20768* (MO). **Taney Co.:** Swan, common in woods, 30 Sep 1899, *Bush 689* (MO). **Washington Co.:** Upland acid cherty slopes in headwaters of Bates Creek, W of rd, 6 mi NE of Belgrade, T36N R2E S04, 27 Sep 1954, *Steyermark 77851* (MO, UMO); Upland acid cherty slopes in headwaters of Bates Creek, T36N R2E S4, W of Rd, NE of Belgrade, 27 Sep 1954, *Steyermark 77838* (UMO). **Wayne Co.:** Forested area managed for savannah, recently prescribe-burned, T26N R04E NE1/4 S05, 20 Sep 1994, *Rowan 1227* (MO).

***Desmodium marilandicum* (L.) DC.**

**Adair Co.:** Along Old Chariton River, T62N R16W S34, 2 1/2 mi S of Youngstown, 19 Sep 1955, *Steyermark 79662* (NEMO, UMO). **Audrain Co.:** Along S- and SE-facing exposed limestone bluffs along South Fork of Salt River, T53N R08W S33, 2 1/2 mi S of Santa Fe, 15 Sep 1954, *Steyermark 77401* (UMO). **Bany Co.:** Eagle Rock, 18 Sep 1896, *Bush 86* (MO-2 sheets). **Barton Co.:** Rocky upland woods, sandy soil, 3 mi NE of Milford, 22 Sep 1951, *Palmer 53140* (UMO); Rocky open woods, sandy soil, along Horse Creek, 3 mi NE of Milford, 24 Sep 1951, *Palmer 53200* (UMO); Open upland woods, sandy soil, 1 mi E of Milford, 6 Sep 1950, *Palmer 51009* (UMO). **Benton Co.:** Rock Hill Prairie, at SE intersection of Hwy 65 and BB, ca 5 mi N of Warsaw, T41N R22W SE1/4 S22, 4 Oct 1988, *Ladd 13374 & 13375* (MO); Dry hilltop in savanna area, NW of park office, T40N R23W S1/2 SW1/4 SE1/4

S03, ca 200 ft, 5 Jul 1985, *Baldwin 131* (WARM). **Bollinger Co.:** Upland cherty wooded ridge, 1 mi SE of Buchanan, 8 mi NW of Zalma, T29N R8E S09, 18 Sep 1954, *Steyermark 77687* (UMO). **Boone Co.:** Woods, Ashland area, 9 Sep 1946, *Spencer s.n.* (UMO); Common in old fields, University Arboretum, Ashland, 14 Sep 1940, *Drew s.n.* (UMO). **Callaway Co.:** Upland sandstone woods on ridge tributary to Halls Creek, W of Auxvasse Creek, 3 mi E of Hams Prairie, T46N R08W S18, 11 Sep 1937, *Steyermark 26152* (MO). **Camden Co.:** Slopes beside Hwy K at S point of Lake of the Ozarks, T37N R17 SE1/4 S09 19 Sep 1974, *Conrad 3338* (MO). **Carter Co.:** Chilton Creek Preserve, 26 Jun 1996, *George s.n.* (WARM). **Cedar Co.:** Thicket, along small stream, near Cedar Springs, 18 Sep 1958, *Palmer 67921* (UMO); Sandy, moist, disturbed soil along a small creek, 4.5 mi S of Eldorado Springs, 6 Sep 1966, *Stephens 9025* (KANU). **Chariton Co.:** Upland acid wooded slopes, tributary to Little Chariton River, 2.5 mi NE of Keytesville, T54N R18W S23, S24 & S26, 16 Sep 1937, *Steyermark 26471* (MO); Wooded ravines and prairie openings tributary to Mussel Fork, 5-5.5 (by air) SE of Marceline, T56N R17-18W W part S06 and E part S01, 21 Sep 1955, *Steyermark 79866* (NEMO, UMO). **Cole Co.:** Cherty sandstone upper slopes of ravine tributary to Osage River, 4 mi N of St. Thomas, T43N R12W S35, 18 Aug 1937, *Steyermark 24933* (MO). **Cooper Co.:** Cherty slopes above W-facing limestone bluffs along Lamine River, T47N R19W S32, 2-2.5 mi NE of Clifton City, 8 Oct 1938, *Steyermark 21822* (MO). **Crawford Co.:** Roubidoux sandstone barrens along slopes of Brush Creek, at McDade Springs, 21 Sep 1934, *Steyermark 15396 & 15409* (MO); Roubidoux sandstone barrens along slopes of Brush Creek, at McDade Springs, 21 Sep 1934, *Steyermark 15409* (UMO). **Dent Co.:** E-facing cherty slopes in pine woods in ravine S of Bunker CCC Camp F-7, 5 mi NW of Bunker, T32N R03W S03, 30 Jul 1936, *Steyermark 12342* (MO); Prairie roadside, 7.5 mi SW of Salem, 8 Sep 1966, *Stephens 9180* (KANU). **Franklin Co.:** SW-facing slope at edge of woods, Missouri Botanical Garden Arboretum, Gray Summit, 17 Sep 1970, *Andreasen 54* (MO); Dry woods, Meramec State Park, Sullivan, 7 Sep 1930, *Kellogg s.n.* (MO). **Henry Co.:** Roadside embankment, along MO Hwy 7, ca 2 mi W of Racket, 7 Sep 1966, *Henderson 66-929* (KANU, Powell, UMO); Upland wooded sandstone slopes along rd near Sand Creek Spring, 4.5 mi NW of Calhoun, 26 Sep 1938, *Steyermark 7502* (MO). **Howell Co.:** West Plains, 20 Sep 1939, *Leopold s.n.* (UMO). **Iron Co.:** Dry thickets, Pilot Knob, Sep 1897 *Russell s.n.* (MO); Pilot Knob, 20 Aug 1895, *Glatfelter s.n.* (MO). **Jackson Co.:** High open prairie, Swope Park, 6 Oct 1923, *Bush 1024* (MO-2 sheets); Dry woods, Martin City, 18 Sep 1901, *Mackenzie 461* (MO). **Jasper Co.:** Dry banks, margin of

woods, 3 mi S of Webb City, 1 Sep 1919, *Palmer 16261* (Powell); Dry soil near Myam's Spur, Webb City, 11 Sep 1909, *Palmer 2679* (MO); Dry soil, Joplin, 27 Sep 1909, *Palmer 2774* (MO-2 sheets); Rocky open ground, near Neck City, 19 Sep 1921, *Palmer 20526* (UMO); Rocky open woods, near Carl Junction, 20 Sep 1923, *Palmer 23797* (UMO); Rocky open upland woods, above bluffs of Center Creek, near Belleville, 12 Aug 1950, *Palmer 50647* (UMO-2 sheets). **Jefferson Co.:** Around artificial pond in fields, ca 0.6 mi NNE of Harness Bluff on Big River, 6.5 mi W of DeSoto, T39N, R3E, sec 3, 38°07'30"N, 90°40'30"W, alt 200 m, flowers rose-purple, the banner white along the sides, one clump observed, 25 Aug 1991, *Raven 27925* (MO). **Johnson Co.:** Open area along Hwy DD, Knob Noster State Park, 6 Jul 2000, *McCauley 875* (WARM). **Laclede Co.:** Upland cherty slopes tributary to Mill Creek, 5 mi E of Lebanon, 23 Aug 1937, *Steyermark 25213* (MO). **Lawrence Co.:** Hillside woods along bluff of Spring River, Red Mill, 1 mi S of Verona, 22 Aug 1950, *Palmer 50801* (UMO); Rocky open upland woods, 1.5 mi NE of Miller, 20 Sep 1950, *Palmer 51117* (UMO); Open upland woods, along small stream, Sycamore Hollow, 3 mi NE of Miller, 20 Sep 1950, *Palmer 51139* (UMO); Open upland woods, along Center Creek, near Big Spring School, Mt. Pleasant Township, 15 Aug 1950, *Palmer 50710* (UMO). **Lincoln Co.:** Dry sandstone cherty slopes along tributary of Mill Creek, T51N R01W S28, 2 mi NE of Silex, 8 Sep 1937, *Steyermark 26018* (MO); Sandy woods, Foley, 22 Sep 1932, *Kellogg s.n.* (MO); Open places in soil derived from St. Peter sandstone in ravine along branch of Sandy Creek, 2 mi W of Foley, 22 Sep 1932, *Steyermark 8122* (MO, UMO); Hedemen Springs and vicinity, tributary to and along Big Creek, T48N R1W S20, 6.5-7 mi SW of Troy, 7 Oct 1956, *Steyermark 82965* (UMO). **Madison Co.:** Rt. T, ca 1 mi W of Mill Run, 13 Sep 1969, *D'Arcy 3785* (MO). **Maries Co.:** Along Hwy 63 between Vienna and St. James, 11 Aug 1927, *Rickett s.n.* (UMO). **McDonald Co.:** Without locality, 1 Sep 1893, *Bush s.n.* (MO). **Miller Co.:** Along rd in Girl Scout Camp Pin Oak in the Government Recreation Area near Kaiser, 11 Sep 1938, *Lodewyck 474* (MO); Ravine in upland cherty woods along branch of Grand Glaize Creek, Lake of the Ozarks, 3 mi SW of Brumley, 25 Oct 1936, *Steyermark 20679* (MO); Cherty slopes above bluffs along Mill Branch, a tributary of Barren Fork, 4 mi W of Iberia, T39N R12E S21, 19 Sep 1938, *Steyermark 6750* (MO); Bagnall Dam, sky lift area, 7 Sep 1974, *Davidson 30* (NEMO). **Monroe Co.:** Abandoned field, T54N R8W S9, NW4, 13 Jul 1973, *Hintertuer 505* (MO). **Morgan Co.:** Upland oak-hickory ridge, along Rd H, E of Procter, 2 mi W of jct of H with Hwy 5, 24 Oct 1936, *Steyermark 20532* (MO). **Montgomery Co.:** Cherty upper slopes, N-facing limestone bluffs along

West Fork of Cuivre River, 8.5 mi NW of Bellflower, T50N R03W S32, 16 Sep 1954, *Steyermark 77455* (MO, UMO); Sandy soil in woods along Dry Fork of Loutre River, 1 mi SW of Americus, 3 Oct 1934, *Steyermark 15829* (MO). **Newton Co.:** Dry hills, Saginaw, 26 Aug 1908, *Palmer 1425* (MO). **Oregon Co.:** Deer-cattle enclosure, Wilderness Refuge, 26 Sep 1946, *Dalke s.n.* (UMO). **Pettis Co.:** Cherty upper slopes above limestone wooded bluffs along Lake Creek, 1-1.5 mi S of Lutman, T44N R20W S12 & S13, 3 Oct 1938, *Steyermark 21424* (MO). **Pike Co.:** Open wooded cherty slopes along tributary to Grass Creek, 5 mi W of Louisiana, T54N R02W S20, 6 Sep 1937, *Steyermark 25897* (MO); S-facing wooded slopes of Long Knob, with cherty eroded slopes and limestone escarpment, 4.45 mi SW of Clarksville, T53N R01W S15 & S14, 5 Oct 1956, *Steyermark 82792* (UMO). **Polk Co.:** Along rocky banks of Pomme de Terre River, 1.5 mi N of Burns, 25 Sep 1957, *Palmer 66987* (UMO); Along S side of Lindley Creek, 2.5-2.75 mi (by air) SE of Sentinel, T35N R21W S17 and W part S16, 23 Oct 1954, *Steyermark 78170* (MO). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3079* (WARM). **Randolph Co.:** Upland deciduous woods, T55N R14W S21 & S20, May 1981, *Conrad 9160* (NEMO). **Ralls Co.:** In woods at base of bluff along Salt River between Hog and Shepherd Ford, 5.5 mi W of Center, T55N R07W S24 & S26, 5 Sep 1937, *Steyermark 25854* (MO). **Reynolds Co.:** Upper cherty wooded W-facing slopes along valley of Kelley(Cook) Spring branch, near West Fork of Black River, 3 mi S of Oates, 21 Sep 1935, *Steyermark 19698a* (MO); East Fork near Lesterville, 18 Aug 1927, *Rickett s.n.* (UMO). **Ripley Co.:** Narrow open bank between rd and mowed lawn, US Hwy 160 ca 0.5 mi W of Fair Dealing at Pilgrim's Rest Church, scattered, T32N R04E NW1/4 S10, flowers small, bright pink, with *Eupatorium* spp., *Ambrosia*, *Tridens*, and other herbs, 6 Sep 1993, *Yatskiyevych 93-358* (MO); Cherty pine-covered upper slopes along Current River, between Harris Club House and Bay Mill, 10 mi NW of Doniphan, 18 Oct 1936, *Steyermark 20492* (MO). **Saline Co.:** Upper cherty slopes above NW-facing limestone wooded slopes along Blackwater River, Sect. 32, 5 mi NW of Prairie Ridge, 6 Oct 1938, *Steyermark 21538* (MO). **Shannon Co.:** Rocky woods, Montier, 2 Sep 1918, *Bush 8772* (MO); Old pine woods, 8 mi S of Eminence, 30 Aug 1974, *Castaner 3793* (WARM). **St. Clair Co.:** Wooded sandstone slopes along N side of Osage River, 2 mi N of Ayer, S of Monegaw Springs, 3 Oct 1936, *Steyermark 20242* (MO); Along roadside, Bear Hollow Bluff Study Area, Ozark National Scenic Riverways, 11 Aug 1992, *Skinner 4589* (SMS). **St. Francois Co.:** Rocky open woods on N slopes of Simms Moun-

tain, 2 mi S of Elvins, 4 Sep 1977, *Summers 361* (MO); Margin of granite glade, NW-facing slopes of Iron Mountain on property of Iron Mountain Traprock company, access from private company rd, T35N R04E SW1/4 S30, 37°42'30"N, 90°38'00" W, 27 Aug 1993, *Brant 2617* (MO). **St. Louis Co.:** Dry hills, 3 Sep 1878, *Eggert s.n.* (MO); Cliff Creek and Glencoe, 26 Aug 1891, *Eggert s.n.* (MO); Prairie, glade and forest edge, Valle Escondido end of Hill View Drive between I-44 and Rte 66, ca 2 mi NE of Pacific, 2 Sep 1989, *Croat 69791* (MO); Allenton, 13 Aug 1933, *Lodewyks 44* (MO); Fern Glen, 4 Oct 1915, *Drushel s.n.* (MO-2 sheets). **St. Genevieve Co.:** Sandy soil, Hawn State Park, 19 Sep 1975, *Christ s.n.* (MO). **Stoddard Co.:** Rock Knob (quartzitic outcrops at top of hill) S of Club Creek, 2.5 mi N of Acorn Ridge, T27N R9E SW1/4 S26 and NW1/4 S35, 20 Aug 1954, *Steyermark 76700* (UMO). **Stone Co.:** Marble Cave, 11 Sep 1898, *Trelease 1028* (MO); Along S and E side of White River at base of N- and NW-facing wooded slopes, 4 mi (by air) SW of Radical, 4 1/2-5 mi NE of Baxter, T22N R23W S20, 19 Oct 1955, *Steyermark 80529* (UMO). **Taney Co.:** Common in barrens, Swan, 5 Oct 1899, *Bush 788* (MO). **Texas Co.:** Dry woods, Arley, 5 Sep 1932, *Kellogg s.n.* (MO); Wooded area along Rd B, 7.7 mi E of Raymondsville, 28 Aug 1975, *Castaner 4317* (MO, WARM); Sandrock soil, open oak woods, 1 mi E of Plato, 7 Sep 1966, *Stephens 9121* (KANU). **Warren Co.:** Field, Pickering's Sunny Ranch, 21 Sep 1973, *Christ s.n.* (MO); Dry cherty slopes above St. Peter sandstone bluffs along Charrette Cheek, ca 9 mi SE of Warrenton, 4 Oct 1934, *Steyermark 15849* (MO); Sandstone and limestone slopes and bluffs of Toque Creek, T45-46N R01W S34 & N boundary S03, 6-6.5 mi NE of Marthasville, 22 Aug 1956, *Steyermark 82506 & 82517* (UMO). **Washington Co.:** Upland acid cherty slopes in headwaters of Bates Creek, 6 mi NE of Belgrade, T36N R2E S04, 27 Sep 1954, *Steyermark 77835* (UMO). **Wayne Co.:** Williamsville, 9 Sep 1897, *Trelease 234* (MO); Off Hwy 67, ca 11 mi S of Greenville, along Forest Service Rd 546, Mark Twain National Forest, 37°00'02"N 90°25'58"W, 31 Aug 1994, *Bodine 19* (MO). **Wright Co.:** Upland cherty woods, 6 mi NE of Manes, 20 Aug 1937, *Steyermark 24997* (MO); Sandstone slopes along Beaver Creek, T32N R13W S33 and S34, 4 mi N of Manes, 21 Aug 1937, *Steyermark 25090* (MO).

***Desmodium nudiflorum* (L.) DC.**

Without locality, without date, *Bayrich s.n.* (MO). **Adair Co.:** 4.8 mi W of Kirksville, 13 Aug 1968, *Conrad 4967* (NEMO, UMO); Wooded ravines and prairie openings in highly dissected country tributary to Dave Branch, Thousand Hills State Park, T62N R16W S02, 3.75-4 mi W of Kirksville, 15 Aug 1954, *Steyermark 76467* (UMO); Ridge in oak-hickory woods, Sugar

Creek State Forest, 6.6 mi SW of Kirksville, 28 Aug 1978, *Conrad 7987* (NEMO); Wooded slopes, Thousand Hills State Park, W of Gill Creek and E of savanna restoration project, 10 Aug 1995, *Walker 6494* (NEMO). **Barry Co.:** Rocky hillside woods, 9 mi NNW of Viola, 26 Aug 1957, *Palmer 66429* (UMO); Roaring River State Park, along Hwy F between Cabins # 18-22 and Camp Smokey, 17 Jul 1979, *Hornberger 545* (UMO, SMS); Pinnacles, 16 Jul 1927, *Dickson s.n.* (UMO); Rich woods, Seligman, 26 Aug 1935, *Bush 15093A* (MO); Dry chert forest in natural area in Roaring River State Park, 25 Jul 1979, *Hornberger 624 and 625* (SMS); Rocky, wooded slope, Roaring River State Park, 8 Aug 1978, *Timme 312* (SMS); Along Lake Trail, Piney Creek Wilderness, 8 Jul 1988, *Rebman 300 & 302* (SMS); 8 mi S and 1.5 mi E of Cassville, Mark Twain National Forest, 14 Jul 1998, *Morse 2687* (KANU). **Benton Co.:** Hillside, along Co. Rd V, near Lively, 27 Jun 1969, *Myers s.n.* (Powell); Cherty woods near top of NW-facing slopes along Osage River branch of Lake of the Ozarks, 1-1.5 mi N. of Lively, T40N R20W S23 and S13, 23 Sep 1938, *Steyermark 7249* (MO). **Bollinger Co.:** Spring-fed sinkhole pond above a tributary to Pond Creek, Blue Pond Natural Area, T29N R08E SW1/4 SW1/4 S11, 31 May 1979, *Haefner s.n.* (UMO). **Boone Co.:** Rocky woods above Gans Creek on path that branches right off the BFCR to bluffs trail, 5 Aug 1989, *Ryan 1361* (UMO); Tract 5, Federal Wildlife Area, Ashland, 30 Jul 1937, *Jeffrey 12* (UMO); Along Hinkson Creek and in wooded area and clearing above bluffs at sandstone outcrop N of a small church, 10 mi NE of Columbia, 3 Aug 1960, *Dunn 13695* (UMO); Pinnacles, 16 Jul 1927, *Dickson s.n.* (UMO). **Butler Co.:** Low cherty slopes bordering lowland woods, 2 mi NW of Rombauer, along Mud creek, T26N R07E S20, 7 Jul 1936, *Steyermark 11397* (MO); Poplar Bluff, 17 Jul 1900, without collector (UMO). **Callaway Co.:** Environmental Study Vouchers, Union Electric Callaway Plant, 14 Sep 1974, *Ellis & Dunn 231, 250 & 299* (UMO); Environmental Study Vouchers, Union Electric Callaway Plant, 14 Sep 1974, *Dunn & Ellis 21479* (UMO); Environmental Study Vouchers, Union Electric Callaway Plant, 14 Jul 1975, *Ellis 825, 827, 850* (UMO); Kucera Woods, 15 mi S of Fulton, 14 Jul 1975, *Ellis 892* (UMO); Environmental Study Vouchers, Union Electric Callaway Plant, 23 Aug 1974, *Ness & Cool F-1-33* (UMO); Woodland species in the area near the old town site of Reform which occupy the drier sites and disturbed areas, often in fencerows or S & W exposures, ca 3 mi NE of Reform, 29 Aug 1974, *Dunn 21209* (UMO); Sandstone slopes of ravine tributary to Stinson Creek, near Ballinger Springs, 2 mi NE of Harris Prairie, T46N R09W S01, 12 Sep 1937, *Steyermark 21236* (MO). **Camden Co.:** Forest, Ha Ha Tonka State Park, 16 Aug 1995, *Farnsworth 247* (SMS). **Cape Girardeau**

**Co.:** Rocky hillside, N of Leeleys Landing, 6 Aug 1972, *Brooks 6817* (KANU). **Carter Co.:** Peck Ranch Sinkhole Pond Natural Area, in Peck Ranch Wildlife Area, T27N R02W SE1/4 S11, 7 Jun 1979, *Haefner 769* (UMO); Chilton Creek Preserve, near head of Kelly Hollow, 11 Jul 1996, *George s.n.* (WARM); Chilton Creek Preserve above Chilton Creek plot # 216, 24 Jul 1996, *George s.n.* (WARM); Cherty lower slopes along Ten Mile Creek, 7 mi SE of Ellsinore, T25N R04W S01, 8 Jul 1936, *Steyermark 11451* (MO). **Cedar Co.:** Thicket, near Jericho Springs, 26 Jul 1955, *Palmer 60559-A* (UMO). **Chariton Co.:** Upland acid wooded slopes tributary to Little Chariton River, 2.5 mi NE of Keytesville, T54N R10W S23, S24 & S26, 16 Sep 1937, *Steyermark 26468* (MO). **Christian Co.:** Rocky hillside woods, 3 mi SE of Branner, 17 Jul 1954, *Palmer 58249* (UMO); Rich wooded slope, 2 mi SW of Chadwick, 11 Aug 1954, *Palmer 58523* (UMO); Low slopes along E fork of Bull Creek, 3 mi SW of Chadwick, T26N R20W S26 & S27, 8 Jul 1937, *Steyermark 23156* (MO). **Cole Co.:** Jefferson City, 1866, *Krause s.n.* (MO); Upper sandstone slopes in ravine tributary to Osage River, T43N R13W S35, 4 mi N of St. Thomas, 18 Aug 1937, *Steyermark 24976 & 24977* (MO). **Cooper Co.:** Upland sandstone cherty slopes on hill bordering Moniteau Creek, 8 mi SE of Bunceton, T46N R16W S17, 8 Oct 1938, *Steyermark 21626* (MO); Mostly N-facing wooded slopes with small limestone bluffs at base, along Splice Creek, 3.5 mi NE of Prairie Home, T47N R15W S15, 18 Aug 1954, *Steyermark 76628* (UMO). **Crawford Co.:** Roubidoux sandstone slopes along Brush Creek, at McDade Springs, 21 Sep 1934, *Steyermark 15391* (MO); Without locality, 10 Jul 1926, *Woodson 656* (MO). **Dade Co.:** Rocky open woods, sandy soil, near Everton, 23 Jul 1951, *Palmer 52732* (UMO-2 sheets). **Dallas Co.:** Sandstone ledge on slopes at confluence of Douisenburg Creek with Niangua River, 5 mi SW of Long Lane, T33N R19W S11, 4 Aug 1937, *Steyermark 24187* (MO). **Dent Co.:** Cherty woods above lime bluffs of Sinking Creek, on Falk's ranch, 5 mi W of Bunker, T32N R03W S29, 3 Aug 1936, *Steyermark 12462* (MO); Rhyse, 5 Sep 1927, *Kellogg 953* (MO); Rocky woods, Rhyse, 4 Jul 1927, *Kellogg s.n.* (MO); Ridge above bluff, Montauk State Park, T32N R07W SE1/4 NE1/4 SE1/4 S22, 5 Jul 1974 *Maupin 684* (UMO, SMS); Woody slope, Montauk State Park, 27 Jul 1969, *Castaner 182* (WARM). **Douglas Co.:** Low sandstone slopes along Spring Creek near Big Spring, near Roosevelt, T25N R11W S23, 17 Jul 1937, *Steyermark 23340* (MO). **Franklin Co.:** Common, woods, Meramec State Park, 15 Jul 1935, *Mason s.n.* (UMO); Open woods in sandy soil derived from Roubidoux sandstone in Possum Hollow, near Mt. Hope, 4 mi NW of Lonedell, 18 Aug 1933, *Steyermark 8257* (MO, UMO); Shaded slope of *Quercus-Carya* forest, 0.8 mi W of the jct of Co. Rd K and Rte 185 on Rte 185, 38°12'N 91°05'W, petals pink, 12 Aug 1989, *Solomon 18779* (MO). **Gasconade Co.:** Drake, Without date, *Sauer s.n.* (NEMO). **Hickory Co.:** Lower portion of limestone wooded slopes along Pomme de Terre River, 3 mi NE of Elkland, 10 Aug 1937, *Steyermark 24501* (MO). **Howard Co.:** Lower and middle mossy covered ravine slopes tributary of Salt Fork Creek, 1 mi N of Locust School, 3 mi NE of Burton, T51N R15W S01 & S02, 14 Sep 1937, *Steyermark 26323* (MO). **Howell Co.:** Steep, N-facing wooded slope above bluff, shady rich soil with chert and sandstone, ca 5 mi NW of Willow Springs on Indian Creek at Lowe's Ford, T27N R10W NW1/4 S29, 2 Aug 1993, *Summers 6121* (MO); Upper sandstone slopes along Little Indian Creek, 6-7 mi NW of Willow Springs, T27N R10W S07, 20 Jul 1937, *Steyermark 23453* (MO); Sandstone slopes along Little Indian Creek, 6-7 mi NW of Willow Springs, T27N R10W S07, 20 Jul 1937, *Steyermark 23424* (MO); Cherty slopes above limestone bluffs along Eleven Point River, ca 5 mi NE of Peace Valley, 12 Aug 1934, *Steyermark 14515* (MO). **Iron Co.:** Pilot Knob, Aug 1897, *Russell s.n.* (MO). **Jackson Co.:** Rare on hills, Courtney, 16 Jul 1915, *Bush 7684* (MO); High hills, Courtney, 26 Sep 1903, *Bush 1902* (MO). **Jasper Co.:** Rich woods, Webb City, 22 Jul 1909, *Palmer 2542* (MO); Rich woods, Webb City, 23 Jul 1910, *Bush 6024* (MO); Rocky hillside woods, 4 mi S of Carthage, 28 Aug 1919, *Palmer 16195* (UMO); Rich woods, Joplin, 4 Aug 1909, *Palmer 2594* (MO-2 sheets); Frequent in rich bluff woods, Midway Park, Joplin, 4 Aug 1909, *Palmer 2594* (MO); Rich bluff woods, Scotland, 27 Jun 1909, *Palmer 2350* (MO). **Jefferson Co.:** Kimmswick, 5 Jul 1885, illegible collector name *s.n.* (MO); Pacific Palisades, 22 Jul 1931, *Christ s.n.* (MO); Kimmswick, 23 Aug 1883, *Wislizenus s.n.* (MO); Along Mammoth Rd, 1-4 mi S of MO Rte H, S of Hillsboro, 38°10'N 90°42'W, alt 250 ft, herb, corollas pink, 12 Jul 1990, *Miller 5374* (MO); Open dolomite glade with adjacent dry forest, scattered in dry woods above creek, Valley View Glades Natural Area, ca 4 mi NW of State Hwy 21 jct Hillsboro on N side of Co. Hwy B, T41N R04E NW1/4 S30, alt 650 ft, 25 Jul 1993, *Yatskievych 93-231* (MO); Limestone slopes and flats along Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of DeSoto, T39N R03E, alt ca 560, perennial herb, flowering branches naked, arising from below ground level, flowers purple, 21 Jul 1985, *Raven 26734* (MO). **Knox Co.:** Ravines along creek tributary to Middle Fabius River, 4 mi (by air) NE of Knox City, T62N R10W S03, 13 Aug 1955, *Steyermark 79154* (UMO). **Laclede Co.:** Upland cherty sandstone woods tributary to Mill Creek, 5 mi E of Lebanon, 23 Aug 1937, *Steyermark 25212* (MO); Forest, 21 mi S of Lebanon, 8 Jul 1974 *Nelson 355* (SMS). **Lawrence Co.:** Rocky hillside woods, 4 mi NW of Verona, 1 Sep 1950, *Palmer 50907* (UMO-2 sheets); Rich hillside



woods, 2 mi W of Mt. Vernon, 1 Sep 1950, *Palmer 50914* (UMO). **Lincoln Co.:** 1.5 mi from jct EE Co. Rd & Co Rd Y, NW of Winfield and W of Foley, near Cuivre River State Park, 19 Jul 1978, *Poston, Bell & Noblett 615* (UMO). **Macon Co.:** Middle part of ravine slopes facing NW, along Mussel Fork, 4.5-5 mi SE of New Boston, T59N R17W S29, 14 Sep 1954, *Steyermark 77264* (MO, UMO-2 sheets); Transect 25, South 61 Missouri National Guard Training Area, 23 Jul 1997, *Pinkston 247* (SMS); Woolly Acres Training Site, Missouri National Guard, near Transects 6 & 7, 19 Aug 1995, *Weber 78* (SMS). **Maries Co.:** Rocky woods near old logging rd W of creek, Spring Creek Gap WA, 2.4 mi S of Vichy on Hwy 63, then turn E onto old hwy (directly across from the Scenic View), then 0.9 mi to a loop pulloff. 10 Jul 1993, *Edmond 240* (UMO). **Marion Co.:** Cherty upper slopes, SW-facing slopes and rich tributary ravine with limestone outcrops at top and chert above, along North River, 2 mi S of Philadelphia, T58N R08W S24, 11 Aug 1955, *Steyermark 79005* (MO). **McDonald Co.:** Margin of a woods, along MO Hwy 90, ca 3 mi E of Noel, 7 Jul 1967, *Henderson 67-1155* (Powell, SMS, UMO); Thicket with rocky ground, 2 mi W of Jane, 7 Jul 1955, *Palmer 60505* (UMO); Without locality, 1 Sep 1893, *Bush s.n.* (MO); Noel, rocky woods, 10 Aug 1908, *Palmer s.n.* (MO). **Moniteau Co.:** Wooded banks overlying slight Roubidoux sandstone exposure, along S. Moreau Creek, S of Enon, 16 Aug 1937, *Steyermark 24772* (MO). **Newton Co.:** Reding's Mill, by stream, Aug 1928, *Williams s.n.* (UMO); Along trail descending slope to creek, Alum Cove Natural Bridge Recreation Area, 7 Jul 2001, *Brunell 609* (SMS); Upland forest, Camp Crowder, Transect 23 Road, 16 Jul 1993, *Matheis 273* (SMS); Camp Crowder, East Road, S section, 6 Jul 1995, *Mlekush 965* (SMS). **Oregon Co.:** Off Hwy 19, near entrance to Kelly Hollow Cave, single individual growing in wooded ravine, 31 Jul 1973, *Hopping 7399* (WARM); N-facing wooded slopes, 6 mi NE of Thomasville in Camp Hollow, T25N R5W S 22, flowers all white, 14 Jul 1992, *Summers 5211* (MO); Dry cherty ravine bottom, 3 mi N of Greer, McCormack Lake area, T25N R4W S23, 17 Jul 1992, *Summers 5260* (MO); N side of parking lot near entrance of Grand Gulf State Park, 14 Jul 1989, *Orr 174* (SMS). **Ozark Co.:** Rocky wooded bluffs of river, near Tecumseh, 8 Oct 1927, *Palmer 32983* (MO); Sand rock hollow tributary to Little North Fork of Mile River on upper slopes, 3 mi SE of Hammond, 1 Jul 1973, *Steyermark 22878* (MO). **Perry Co.:** St. Peter sandstone slopes along ravine of Shawnee Springs Branch (Taylor Springs Branch) of Cine Hommes Creek, ca 3 mi S of Perryville, 29 Jul 1934, *Steyermark 13985* (MO). **Phelps Co.:** Gasconade River, 14 Aug 1897, *Trelease 236* (MO); Duke, Jul-Aug 1913, *Uphof 182a* (MO). **Pike Co.:** Ted Shanks Area-DuPont-TA, 9 Jul 1973, *Toney &*

*Korschgen s.n.* (UMO); Near Clarksville, woods above pasture, 26 Jul 1947, *Etter 47-244* (MO); Bowling Green Reservoir, rocky hillside to the S of the concrete spillway on the E side of the lake, T53N R02W NW1/4 S29, 17 Jul 1993, *Edmond 286* (UMO). **Polk Co.:** Shady limestone bluff, Camp Fire Girls camp at Graydon Springs ca 2 mi SE of Eudora, 7 Jul 1964, *Eggers 1009* (Powell, SMS); Rocky bank, along creek, 1 mi S of Graydon Springs, 20 Aug 1956, *Palmer 63679* (UMO); Sandstone slopes along creek at Graydon Springs, Graydon, 31 Jul 1937, *Steyermark 23972* (MO). **Pulaski Co.:** Oak-hickory forest, very cherty silt loam, ridge S of Wildcat Shoals Bridge, Doniphan, T35N R10W S29, 19 Jul 1989, *Ovrebo W0503* (KANU, MO); Sandstone slopes bordering ravine tributary to Gasconade River, T37N R11W S31, 2 mi NW of Hooker, 26 Aug 1937, *Steyermark 25393* (MO). **Ralls Co.:** Damp woods, Ilasco, 13 Aug 1915, *Davis 4871* (MO). **Randolph Co.:** Upland wooded sandstone slopes along Silver Spring Creek, 2 mi S of Huntsville, 3 Sep 1933, *Steyermark 9411* (MO); Deciduous woods, E of Thomas Hill, T55N R16W S36, 8 Aug 1979, *Conrad 8506* (NEMO); Along nature trail, Camp T. Bird, 9 Jul 1979, *Gunier 23* (NEMO). **Reynolds Co.:** Chert slopes above limestone bluffs along Black River, W of Gods Hill and ca 10 mi SE of Redford, 3 Aug 1934, *Steyermark 14209* (MO); Upland sinkhole pond, Lily Pond Natural Area, W of MO Hwy V and N of Redford, T31N R01E NW1/4 S23, 14 Sep 1979, *Haefner 1620* (UMO); Upland sinkhole pond, Bowles Pond, W of MO Hwy V, and N of Redford, T31N R01E SW1/4 S23, 12 Jun 1979, *Haefner 871* (UMO); Steep N-facing Wooded hillside over dolomite substrate, Johnson's Shut-ins State Park, 28 Jun 1975, *Nelson 509* (SMS). **Ripley Co.:** Common in rocky woods, Pleasant Grove, 17 Jul 1897, *Mackenzie 335* (MO). **Scott Co.:** Wooded dissected slopes along sandy creek with shaley gravel on SW part of Crowley Ridge, 0.5 mi NW of Morley, T28N R13E S28, 21 Aug 1954, *Steyermark 76850 & 76852* (UMO). **Shannon Co.:** Dry woods, S. of Round Spring, ca 3-4 mi at Virgin Pine Forest on Hwy 19, 30 Aug 1974, *Castaner 3783* (WARM); Common in woods, Montier, 22 Aug 1907, *Bush 756* (MO); Base of N-facing limestone bluffs overlooking river, oak forest with thin soil and scattered patches of lichens and mosses, understory mostly *Vaccinium* and *Amelanchier*, Jack's Fork River, ca 2.5 mi E of bridge at Hwy 17, T27N R06W N1/2 N1/2 S05, alt 900 ft, fertile and sterile stems separate, the fertile stems arching, 19 Aug 1989, *Yatskievych 89-312* (MO); Rocky woods, Montier, 4 Aug 1922, *Bush 9821* (MO); Belew Hollow Bluff, 25 Jul 1992, *Skinner 4335* (SMS); Dry, rocky slope, Middle Load Hole Bluff, Ozark National Scenic Riverways, 25 Aug 1992, *Skinner 4847* (SMS); Woods around glade, Bear Hollow Bluff, Ozark National Scenic Riverways, 25 Aug 1992, *Skinner 4910*

(SMS); Steep, S-facing wooded slope, N bank of Jacks Fork River, vicinity of Alley Springs, 11-12 Jul 1969, *Redfearn 399 & 587* (SMS); NE-facing slope, ca 0.25 mi W of Blue Spring and 0.125 mi E of the Current River, Station 51 Site 1, 7 Aug 1976, *Pope s.n.* (SMS); Ridge above campground at Owls Bend, ca 0.125 mi E of Current River, Station 53 Site 1, 7 Aug 1976, *Pope s.n.* (SMS); Oak-hickory-pine woods, 3 mi SE of Winona on Hwy 60, 26 Aug 1968, *Bare 1887* (KANU). **St. Clair Co.:** Oak-Hickory woodland, at the Boy Scout Camp, ca 12 mi E of Osceola, 13 Jul 1973, *Henderson 73-185* (Powell); Half way up cherty wooded slopes bordering valley on E side of Osage River, 3.5 mi N of Iconium, T39N R24W S03, 7 Aug 1937, *Steyermark 24353* (MO). **St. Francois Co.:** Oak-Hickory Forest along co. rd. 10 Jul 1963, *Redfearn.12688* (Powell, SMS); Rocky open woods on Simms Mountain, 2 mi S of Elvins, 11 Sep 1977, *Summers 380* (MO). **St. Louis Co.:** Without locality 23 Jul 1878, *Eggert s.n.* (UMO); Hill at Chain-of-Rocks, 16 Jul 1892, *Glatfelter s.n.* (MO); Near Valley Park, 9 Sep 1887, *Eggert s.n.* (MO); Allenton, Jul-Aug 1898, *Kellogg s.n.* (MO); Woody hills S of Merrimac, Jul 1845, *Engelmann s.n.* (MO); Southlands Station, 25 Jul 1891, *Eggert s.n.* (MO); Greensfelder Park, N side of woods Rd, 50 yds. E of gate, Pawnee Area, E of Allenton Rd., 1.25 mi N of Allenton Rd.-Hencken Rd. jct, T44N R03E SE1/4 NE1/4 S21, plants growing in abundance, grassy roadside area, 17 Jul 1993, *Steyermark 1335* (MO); Meramec Bend, 5 Sep 1891, *Glatfelter s.n.* (MO). **Ste. Genevieve Co.:** Dry woods, Hickory Canyon Natural Area, LAD Foundation Property, ca 2 mi N of Sprott, via dirt rd off Co. Rd EE, T37N R6E S25, large set of sandstone gorges with tall bluffs, alt 800-950 ft, 27 Jul 1989, *Mohlenbrock 8990 & 8996* (MO); Frequent throughout woods, Pickle Springs, ca 9 mi SW of Weingarten, flowers mauve, *D'Arcy 3545* (MO). **Stoddard Co.:** Rock Knob S of Club Creek, T27N R09E SW1/4 S26 & NW1/4 S35, 2.5 mi N of Acorn Ridge, 20 Aug 1954, *Steyermark 76693* (UMO); Dexter, 18 Jul 1900, *Dimitt s.n.* (UMO). **Taney Co.:** Cedar glade, Mark Twain National Forest Site 10, 23 Jul 1977, *Hicks 726* (SMS); Oak-hickory forest near edge of glade, Mark Twain National Forest, 28 Jul 1977, *Hicks 760* (SMS); Oak hickory forest, soil deep with little to no overstory, near pond along road to Shanda's Point, Drury Conservation Area, 9 Jul 2000, *King 174* (SMS); Without locality, 23 Jul 1972, *Brooks 6733* (KANU). **Vernon Co.:** Lower woods and slopes along Cave Hollow, 3.5 mi N of Monte Vallo, 0.2 mi S of rd, T34N R30N S03, 28 Sep 1938, *Steyermark 9709* (MO). **Warren Co.:** Sandstone and limestone slopes and bluffs of Toque Creek, 6-6.5 mi NE of Marthasville, T45-46N R1W S34 & N boundary of S03, 22 Aug 1956, *Steyermark 82459* (UMO). **Washington Co.:** Shady forest near top of hill, T38N R02E NW1/4 S15, flowering

stalks clumped, just underground, vegetative portion in center, in 21 Jun 1986, *Manning 47* (MO). **Wayne Co.:** Upland cherty slopes in pine-oak woods, W of Grassy, 2 Aug 1934, *Steyermark 14170* (MO). **Webster Co.:** Upper cherty sandstone wooded slopes along Osage Fork of Gasconade River, T32N R16W S20, 1 mi N of Rader, 28 Jul 1937, *Steyermark 23786* (MO). **Wright Co.:** Near Smittle Cave, 3 Sep 1927, *Rickett s.n.* (UMO); Upper cherty wooded slopes along Bryant Creek headwater, T28N R16W S26 & S35, 2 mi SE of Cedar Gap, 26 Jul 1937, *Steyermark 23681* (MO); Upper sandstone ravine slopes along Beaver Creek, near Jarret's Ford, 3 mi N of Manes, 21 Aug 1937, *Steyermark 25042* (MO).

***Desmodium nuttallii*** (Schindl.) B.G. Schub.

**Barry Co.:** Eagle Rock, common, 20 Sep 1896, *Bush 38* (MO). **Bollinger Co.:** Along Crooked Creek, T31N R09E E part S16 and S17, 17 Sep 1954, *Steyermark 77611* (UMO). **Cape Girardeau Co.:** Steep wooded mostly acid-soil ravines tributary to Dog Hollow, 2 mi NW of Neelys Landing, T11N R14E S29, 29 Aug 1954, *Steyermark 76988* (UMO). **Carter Co.:** Rocky open woods along old logging road, ca 4.5 mi SW of Van Buren (via air) in Mark Twain National Forest, T26N R01W SE1/4 S10, 7 Sep 1993, *Summers 6372* (MO); Upland sinkhole pond, Peck Ranch Sinkhole Pond Natural Area, Peck Ranch Wildlife Area, T27N R02W SE1/4 S11, 15 Sep 1979, *Haefner 1678* (UMO); Chilton Creek Preserve jct Midrange and Rd 26, 31 Jul 1996, *George s.n.* (WARM); Chilton Creek Preserve at Rd 26, 26 Jun 1996, *George s.n.* (WARM-2 sheets). **Christian Co.:** Cherty upper slope along East Fork of Bull Creek, 5 mi SW of Chadwick, T26N R20W S33, 9 Jul 1937, *Steyermark 23161* (F, MO). **Dent Co.:** Steep, S-facing wooded slope and ridge above Current River, Ozark National Scenic Riverways, 14 Sep 1969, *Redfearn 1290* (SMS). **Douglas Co.:** Upper sandstone wooded ridge top bordering Indian Creek near Holy Cliff, 3.5 mi NE of Topaz, T27N R11W S33 & S34, 19 Jul 1937, *Steyermark 23379* (F, MO). **Franklin Co.:** Rolling clay loam soils, W slope, vegetation *Sorghastrum nutans*, *Andropogon scoparius*, Arboretum Experimental Prairie II (36.2 a.002), 600 m NE of Trail House at Missouri Botanical Garden Arboretum, Gray Summit. 38°28'N, 90°49'W, alt 200 m, 24 Jul 1986, *Faber-Longendoen 122* (MO). **Howell Co.:** Cherty wooded slopes above in Carmen Springs game refuge, Gardner National Forest, 12 Sep 1936, *Steyermark 20038* (MO); Edge of woods along E side of rd, ca 8 mi E of West Plains off Hwy ZZ on Co. Rd SE 979, T24N R07W NE1/4 S25, 8 Sep 1993, *Summers 6398* (MO). **Iron Co.:** Low ground, Pilot Knob, Sep 1897, *Russell s.n.* (MO). **Jefferson Co.:** Glades in wooded slopes on dolomite, W slope of hill, ca 0.7 mi ENE of confluence of Mammoth Creek with Big River, 6.5 mi W of DeSoto T39N R03E S11, 25 Aug 1991,

*Raven 27917* (MO). **Madison Co.:** Rte T ca 1 mi W of Mill Run, flowers purple fading teal blue, 13 Sep 1969, *D'Arcy 3779* (MO). **McDonald Co.:** Dry ground, common, 1 Sep 1893, *Bush 62* (F, MO); Roadside prairie, 11 mi E of Jane, 14 Sep 1966, *Stephens 9310* (KANU). **Oregon Co.:** Cherty upland slopes, Grand Gulf, T22N R06W SW1/2 S20 and N1/2 S29, 3.5-4 mi S of Koshkonong, 21 Aug 1949, *Steyermark 69002* (F); Wilderness refuge, 26 Sep 1946, *Dalke s.n.* (UMO). **Ozark Co.:** Cherty upland ridge top, Norfolk Dam survey of flooded area along North Fork of White River, T22N R12W S16, S21, S28 & NW part of S27, 0.25-2 mi S of Tecumseh, 5 Sep 1948, *Steyermark 66227* (F); At extreme S end of W-facing limestone bluffs along North Fork (now part of Norfork Lake), T21N R12W S2, 1.5 mi S of Udall, 4 Sep 1955, *Steyermark 79631* (NEMO). **Phelps Co.:** Sand along dry bed of Little Piney Creek, 4.5 mi NE of Edgar Springs, T35N R08W S21, faded flowers bluish-green, 27 Aug 1837, *Steyermark 25438* (F, MO); Upland woods, Bradford Branch woodland restoration area transect A plot #1, Mark Twain National Forest, ca 4 mi S of Flat, S of Ledbetter Hollow, T35N R09W S04 & S05, 11 Aug 1992, *Ladd 16785* (MO); Upland flatwoods on broad ridge, Savanna Research Area woodland restoration site, along Hwy T, ca 2.3 mi S of Flat, Mark Twain National Research Forest, T36N R09W E1/2 S33, 14 Sep 1992, *Ladd 16820* (MO); Bald Ridge transect, Mark Twain National Forest, Houston-Rolla District, T34N R11W S25, S26, S35 & S36, 10 Aug 1994, *Ladd 18382* (MO); "Natural Bridge" and vicinity along creek tributary to Kaintuck Hollow, 4.5-4.75 mi SSW of Newburg, T36N R9W NE1/4 S16, 11 Sep 1956, *Steyermark 82570* (UMO-2 sheets). **Shannon Co.:** Cherty wooded slopes near top of Round Mt., in shut ins, 3 mi SW of Midridge, T30N R03W S10, 27 Sep 1936, *Steyermark 20153* (MO); Woods, 4 Sep 1932, *Kellogg s.n.* (MO); Shut-In Mountain, in xeric igneous woods below glade on upper SW face of the Mt, ca 0.5 mi E of Hwy H on Shut-In Mountain Rd, T28N R3W SW1/4 S12, 8 Aug 1988, *Ladd 13269* (MO); Open rocky woods, Montier, 2 Sep 1918, *Bush 8771* (MO); Steep, S-facing, wooded slope, N bank of the Jacks Fork River, near Alley Springs, 14 Sep 1969, *Redfearn 467* (SMS); W-facing slope along the Jacks Fork River, ca 0.5 mi E of Two Rivers Campground, station 56 site 1, 12 Aug 1976, *Pope s.n.* (SMS). **Ste. Genevieve Co.:** On bluff, Pickle Springs, ca 9 mi SW of Weingarten, 13 Sep 1969, *D'Arcy 3770* (MO). **Stoddard Co.:** Scattered along edge of old rd above recently burned homestead and just SE of original *Paspalum bifidum* site, E of the Pleasant Valley Church, Holly Ridge Conservation Area, ca 3.1 mi, NE of jct Rte 60 and Rte 25, T26N R11E SE1/4 SE1/4 S31, ca 40-50 plants, 25 Aug 1997, *McKenzie 1797* (MO, UMO); Base of Crowley Ridge, just E of Pleasant Valley

Church, T25N R11E NW1/4 S06, 3.5 mi SE of Bloomfield, 21 Aug 1954, *Steyermark 76832* (UMO). **Stone Co.:** Cherty open woods on NW edge of Virgin Bluff, along Long Bend of James River, S of Cape Fair, 27 Aug 1935, *Steyermark 19673* (MO); Cherty ridge on top, S-facing limestone bluffs along James River, T23N R24W S23, 4 mi SE of Cape Fair, 1 Sep 1951, *Steyermark 72544* (F); On E side of White River, T22N R24W S22 & S27, 3.5-4.5 mi NW of Baxter, 4.5-5.5 mi NE of Viola, 20 Oct 1955, *Steyermark 80604* (UMO). **Taney Co.:** Dry, rocky soil in savanna/glade area, Shanda's Point, near mouth of Mincy Creek, Drury Conservation Area, 22 Jul 1999, *King 99* (SMS). **Texas Co.:** Jacks Fork River, S slope 1-1.5 mi W of Harlow Ford, 30 Aug 1970, *Sutter 233 & 234* (MO); Gravel bar, Jacks Fork River, 1 Jul 1970, *Witherspoon 416* (SMS).

***Desmodium obtusum*** (Muhl. ex Willd.) DC.

No locality, no date, *Engelmann 18373* (MO). **Barry Co.:** Exeter, 29 Sep 1896, *Bush 58* (MO); Common on prairie, Exeter, 29 Sep 1896, *Bush 58* (MO). **Barton Co.:** Open upland woods, sandy soil, along Horse Creek, 3.5 mi NE of Milford, 18 Sep 1953, *Palmer 56731* (UMO). **Bates Co.:** Low woodland, ca 2.5 mi N of Ballard on Hwy MM, 17 Aug 1975, *Castaner 4382* (WARM). **Bollinger Co.:** Spring-fed sinkhole pond above a tributary to Pond Cr., Blue Pond Natural Area, 09 Sep 1979, *Haefner 1525* (UMO); Upper part of ravine slopes in oak-hickory-sour gum-red maple woodland on W side of Hwy 51, T30N R10E S18, 1.75 mi S of Lutesville, 17 Sep 1954, *Steyermark 77630* (UMO). **Boone Co.:** Ashland area, 9 Sep 1946, *Spencer s.n.* (UMO). **Butler Co.:** Rocky upland woods, Poplar Bluff, 11 Sep 1911, *Palmer 16351* (MO). **Callaway Co.:** Environmental Study Vouchers, Union Electric Callaway Plant, 14 Sep 1974, *Dunn & Ellis 21452* (UMO). **Camden Co.:** Turkey Pen Hollow Savanna, Ha Ha Tonka State Park, 30 Aug 1985, *Groves 136* (SMS). **Carter Co.:** Intersection of Rd 26 and Midrange on Nature Conservancy Chilton Creek Preserve, 26 Jul 1996, *George s.n.* (WARM). **Christian Co.:** 0.5 mi W of Swan L.O. Tower, 18 Aug 1961, *Richmond 353* (UMO). **Cole Co.:** Cherty sandstone upper slopes of ravine tributary to Osage River, T43N R12W S35, 4 mi N of St. Thomas, 18 Aug 1937, *Steyermark 24929* (MO). **Crawford Co.:** Roubidoux sandstone slopes along Brush Creek at McDade Springs, 21 Sep 1934, *Steyermark 15404, 15408, 15417 & 15444* (MO). **Dallas Co.:** S-facing limestone "Guthrie Bluff" along Niangua River, T36N R18W S border of S25, 5.5-6 mi W of Eldridge, 5.5 mi SE of Leadmine, 22 Oct 1954, *Steyermark 78121-A & 78121-B* (UMO). **Dent Co.:** Rhyse, 5 Sep 1927, *Kellogg 950* (MO); Indian Trail State Forest, 26 Sep 1939, *Dalke s.n.* (UMO). **Douglas Co.:** Hell Hole Hollow (tributary of Indian Creek), bordered by

sandstone and limestone bluffs, 4 mi SE of Topaz, T26N R11W S20 & S21, 18 Aug 1956, *Steyermark 82312* (UMO). **Dunklin Co.:** Campbell, 14 Sep 1893, *Bush s.n.* (MO); Malden, 12 Sep 1893, *Bush s.n.* (MO). **Franklin Co.:** Upper Roubidoux sandstone bluffs at Pine Bluff, 2.5 mi NW of Rd K from Meramec River bridge, SE of St. Clair, 28 Sep 1935, *Steyermark 19811* (MO). **Howell Co.:** Rocky open woods, logged 3 years ago, acid soil, 3.5 mi N of Brandsville on Co. Rd SE 979, T24N R07W NW4 S36, 7 Sep 1993, *Summers 6380* (MO); Along South Fork of Spring River, T23N R8W S32, 7 mi (by air) S of West Plains, 26 Jun 1955, *Steyermark 78793* (UMO). **Iron Co.:** Pilot Knob, 20 Aug 1895, *Glatfelter s.n.* (MO). **Jasper Co.:** No locality, 16 Aug 1893, *Bush s.n.* (MO); Rocky open woods near Cave Spring, 27 AUG 1920, *Palmer 18851* (UMO). **Jefferson Co.:** Field, Seckman, 29 Aug 1969, *Christ s.n.* (MO); Glade, on Sandy Ridge, St. Peter sandstone, 8 mi NW of Pevely, 11 Sep 1932, *Steyermark 7128 & 8580* (MO). **Laclede Co.:** Cherty sandstone upper slopes tributary to Mill Creek, 5 mi E of Lebanon, 23 Aug 1937, *Steyermark 25215* (MO). **Lincoln Co.:** Dry cherty sandstone slopes along ravine tributary to Mill Creek, 3 mi NE of Silex, T51N R01W S28, 8 Sep 1937, *Steyermark 26016* (MO); Open places in soil derived from St. Peter sandstone, in ravine along branch of Sandy Creek, 2 mi W of Foley, 22 Sep 1932, *Steyermark 8124* (MO). **Maries Co.:** Cherty upper slopes along Gasconade River, T40N R09W S10 & S11, 2.5 mi NE of Vienna, 29 Aug 1937, *Steyermark 25559* (MO). **McDonald Co.:** No locality, 1 Sep 1893, *Bush s.n.* (MO). **Miller Co.:** Near top of W-facing cherty slopes with limestone below, bordering Tavern Creek, T39N R13W S02 and T40N R13W S36, 2.5 mi W of St. Anthony, 20 Sep 1938, *Steyermark 6877* (MO). **Montgomery Co.:** Slopes tributary to Sallee Branch of Loutre River, T48N R6W S part of S25 and N part S36, 1 mi S of Danville, 16 Sep 1954, *Steyermark 77512* (UMO). **Osage Co.:** SW-facing limestone bluffs along Osage River and ravine tributary to bluffs, T43N R11W S34, 1.75 3/4 mi (by air) W of Folk, 7 mi SW of Westphalia, 15 Aug 1955, *Steyermark 79256* (UMO); SW-facing limestone bluffs along Osage River and ravine tributary to bluffs, T43N R11W S34, 1.75 mi (by air) W of Folk, 7 mi SW of Westphalia, 15 Aug 1955, *Steyermark 79268* (UMO). **Pettis Co.:** Cherty upper slopes above limestone wooded bluffs along Lake Creek, T44N R20W S12 & S13, 1-1.5 mi S of Lutman, 3 Oct 1938, *Steyermark 21425* (MO). **Pike Co.:** Open woods, acid, cherty and clayey slopes tributary to Grass Creek, T59N R02W S20, 5 mi W of Louisiana, 6 Sep 1937, *Steyermark 25899* (MO). **Polk Co.:** Dry open ground, sandy soil, near Graydon Springs, 20 Aug 1956, *Palmer 63721* (UMO); Restored tall grass prairie with localized seeps on gentle slope, on gravel rd off Hwy 13, La Petite Gemme Prairie Natural Area, 2 mi SE of

Bolivar, 37°34'0"N 93°24'30"W, alt 1130-1150 ft, scattered plants, 20 Sep 1987, *Yatskievych 87-58* (MO). **Pu-laski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3080, 3081 & 3082* (WARM); Sandstone slopes above bluffs along Gasconade River, T37N R11W S31, 2 mi NW of Hooker, 26 Aug 1937, *Steyermark 25391* (MO); Oak savanna ridgetop, SW of Range 29, T34N R11W S7, 20 Aug 1989, *Ovrebø & Sladewski W0809* (MO); Ft. Leonard Wood Army Base, 27 Aug 1989, *Ovrebø W0969* (SMS). **Ralls Co.:** Cherty upper slopes along bluffs of Salt River between Shepherd and Hog Fords, T55N R7W S24 & S26, 5.5 mi W of Center, 5 Sep 1937, *Steyermark 25862* (MO). **Ripley Co.:** Cherty pine-covered upper slopes along Current River between Haws Club House and Bay Mill, 10 mi NW of Doniphan, 18 Oct 1936, *Steyermark 20493* (MO). **Scott Co.:** Property of Dr. Robert Ahlvin, on W side of Co. Rd 505, ca 0.5 mi N of jct with Co. Rd 506, ca 3.5 air mi NNW of Blodgett, 80 acres of pine plantations interspersed with areas of open sand prairie remnants and occasional small groves of *Quercus* and *Carya*, also small pond on site, scattered in open sand prairie, to 1 m tall, T28N R14E NE1/4 S33, alt 325 ft, 27 Aug 1999, *Yatskievych 99-142* (MO); Dry hill, Commerce, 8 Sep 1927, *Kincaid s.n.* (UMO). **Shannon Co.:** Hwy 60, 1 Sep 1927, *Rickett s.n.* (UMO). **St. Clair Co.:** Wooded sandstone slopes along N side of Osage River, 2 mi N of Oyer, S of Monegaw Springs, 3 Oct 1936, *Steyermark 20252* (MO). **St. Francois Co.:** Margin of glade, accessed from private company rd, granite substrate, NW facing slopes of Iron Mountain on property of Iron Mountain Traprock Company, T35N R04E SW1/4 S30, 27 Aug 1993, *Brant 2618* (MO); Pilot Knob, no date, *Glatfelter s.n.* (MO). **St. Louis Co.:** St. Louis, 11 Oct 1908, *Craig s.n.* (MO); Dry copses, 28 Aug 1891, *Eggert s.n.* (MO, UMO). **Stone Co.:** Along S and E side of White River at base of N- and NW-facing wooded slopes along Mill Creek, 4 mi (by air) SW of Radical, 4.5-5 mi NE of Baxter, T22N R23W S20, 19 Oct 1955, *Steyermark 80530* (UMO). **Taney Co.:** Savanna with rocky soil and moderate understory, Skaggs-Keeter Ranch, 27 Aug 1999, *King 136* (SMS); Heavy cover, Clarksville soil, Ozark cedar glades and oak-hickory forest, Mark Twain National Forest, T23N R18W SW1/4 NW1/4 NE1/4 S13, 29 Jun 1977, *Hicks 584* (MO). **Texas Co.:** Roubidoux sandstone slopes under oak-pine woods, on top of bluffs along Big Piney River, SE of Prewitt Springs, 19 Sep 1936, *Steyermark 20073* (MO); Upland sandstone slopes tributary to Roubidoux Creek, near Plato, T32N R12W S02, 20 Aug 1937, *Steyermark 25032* (MO); In wooded area ca 1/2 mi off Rd B, 7.7 mi E of Raymondsville 28 Aug 1975, *Castaner 4318* (WARM). **Warren Co.:** Sandstone and limestone slopes and

bluffs of Toque Creek, T45N R0W N boundary S03 and T46N R01W S34, 6-6.5 mi NE of Marthasville, 22 Aug 1956, *Steyermark 82516* (UMO). **Washington Co.:** Upland acid cherty slopes in headwaters of Bates Creek, W of rd, 6 mi NE of Belgrade, T36N R02E S04, 27 Sep 1954, *Steyermark 77837 & 77842* (UMO).

***Desmodium ochroleucum*** M. A. Curtis ex Canby

**Dunklin Co.:** Malden, 27 Aug 1894, *Bush 78* (MO); Malden, 12 Sep 1893, *Bush s.n.* (MO). **Stoddard Co.:** Roadsides, Dexter, 1 Sep 1930, *Kellogg s.n.* (MO).

***Desmodium paniculatum*** (L.) DC.

Those specimens with very narrow leaflets and extensive pubescence are marked with an asterisk.

**Adair Co.:** Ridgetop at margin of woods, 2.7 mi SW of courthouse in Kirksville, 10 Sep 1974, *Conrad 7337* (MO, NEMO); 4.8 mi SW of Kirksville, 3 Sep 1968, *Conrad 5007* (NEMO, UMO); Ecology plot on College Farm, 23 June 1983, *Weigand s.n.* (NEMO); Thousand Hills State Park, 1 & 14 Aug 1978 no collectors (NEMO-2 sheets); Margin of woods near high water mark, Thousand Hills State Park, 7 Sep 1977, *Conrad 7775* (NEMO); 4.8 mi SW of Kirksville, 13 Aug 1968, *Conrad 4966* (NEMO); Old field, Northeast Missouri State University Ecology plots, W of Hwy. 63, just S of Kirksville city limits, Jun 1987, *Ford s.n.* (NEMO); Pond margin, 3.5 mi NW of Kirksville, 20 Sep 1982, *Walker 196* (NEMO); Creek area at S end of Thousand Hills State Park, 4.3 mi SW of Kirksville, 26 Sep 1977, *Conrad 7797* (NEMO). **Audrain Co.:** Along S- and SE-facing exposed limestone bluffs along South Fork of Salt River, T53N R8W S33, 2.5 mi S of Santa Fe, 15 Sep 1954, *Steyermark 77405* (UMO). **Barry Co.:** Roaring River, 7 Sep 1898, *Trelease 1037* (MO); Along W and SW side of White River, T21N R26W S28 & SW corner of S21, 3-3.5 mi S of Eagle Rock, 22 Oct 1955, *Steyermark 80702* (UMO-2 sheets); Rocky slopes and ridge along Current River just E of Powder Mill, Ozark Scenic Waterway, 4 Oct 1969, *Redfearn 1766* (SMS). **Barton Co.:** Rocky hillside woods, along North Fork of Spring River, 5 mi ENE of Lamar, 6 Sep 1950, *Palmer 50944* (UMO); Open bank, sandy soil, 3 mi NW of Golden City, 12 Sep 1956, *Palmer 64016* (UMO); Open upland woods, 1.5 mi W of Nashville, 27 Aug 1952, *Palmer 54947* (UMO); Open woods, along N side of Muddy Creek, 4 mi N of Lamar, 14 Oct 1958, *Palmer 68155* (UMO); Open upland woods, 1 mi E of Milford, 6 Sep 1950, *Palmer 51019* (UMO); Open bank of pond, sandy soil, 4 mi NE of Lamar, 20 Sep 1956, *Palmer 64069-A* (UMO); Rocky open woods, sandy soil, along Horse Creek, 3 mi NE of Milford, 25 Sep 1951, *Palmer 53199* (UMO); Rocky open woods, 5 mi ENE of Lamar, 6 Sep 1950, *Palmer 50965* (UMO); Rocky open woods,

sandy soil, 3 mi NE of Milford, 22 Sep 1951, *Palmer 53142* (UMO-2 sheets); Open bank, border of woods, 4 1/2 mi ENE of Lamar, 20 Sep 1956, *Palmer 64048* (UMO). **Benton Co.:** Roadside, 31 Aug 1930, *Kellogg s.n.* (MO-2 sheets). **Boone Co.:** Moist wooded area bordered by Gans Creek and Rock Quarry Rd, ca 100 m E of the Hwy 163 bridge, Rock Bridge State Park, 23 Aug 1988, *Ryan 1019* (UMO); Rocheport, 16 Sep 1933, *Naylor s.n.* (UMO); Open rocky woods 1 mi NE of Claysville, 30 Sep 1933, *Drouet 1231* (MO, UMO); railroad ballast just W of Station, Claysville, 30 Sep 1933, *Drouet 1223* (UMO); Loess ridge above Missouri River 3 mi SE of Rocheport, 8 Sep 1933, *Drouet 1115* (UMO); Rocky woods by Hinkson Creek, 2 mi E of Stephens Station, 6 Sep 1933, *Drouet 1109* (UMO); Rd S of college Ave, 24 Aug 1927, *Dickson s.n.* (UMO); Columbia, 6 Sep 1927, *Dickson s.n.* (UMO); Low ground by Hwy A, 0.5 mi W of Hwy 63, 23 Sep 1933, *Drouet 1210* (UMO); Woods, Ashland area, 9 Sep 1946, *Spencer s.n.* (UMO); Oak woods in open places, Columbia, Jul 1903, *Daniels s.n.* (UMO); Rocheport, 23 Jul 1927, *Dickson s.n.* (UMO); Country Club East, 21 Aug 1927, *Dickson s.n.* (UMO-2 sheets); Ashland area, 9 Sep 1946, no collector (UMO); Hermit Hill, S of Columbia, 25 Aug 1927, *Dickson s.n.* (UMO). **Buchanan Co.:** Open dry sand and wetter swales in area of sand deposition from post Missouri River flooding with young *Salix* thickets, ca 1.75 mi SW of Rushville and ca 0.3 mi W of US Hwy 59 on S side of E-W rd, T55N R37W NW1/4 NW4 S22, common, 18 Jul 2000, *Smith 3598* (MO); 3 mi S and 5 mi E of St. Joseph, 28 Aug 1975, *Musser 2* (MWSJ). **Butler Co.:** Poplar Bluff, 14 Aug 1892, *Dewart s.n.* (MO); Bank, border of woods at crossing of Black River, 3 mi NW of Quinn, 30 Sep 1955, *Palmer 61463* (UMO). **Callaway Co.:** Environmental Study Vouchers, Union Electric Callaway Plant, 29 Aug 1974, *Dunn 21213\** (UMO); Environmental Study Vouchers, Union Electric Callaway Plant, 23 Aug 1974, *Ness & Cool F-3-11* (UMO); Cherty ravine slope tributary to Stinzor Creek just S of Ballinger Springs, T46N R09W S01, 2 mi NE of Hams Prairie, 11 Sep 1937, *Steyermark 26176\** (MO). **Camden Co.:** Linn Creek, 17 Sep 1897, *Trelease 230* (MO). **Carter Co.:** Club House, 9 Sep 1897, *Trelease 232* (MO); Shady, forested base of steep bluffs, gravel rd shoulder, Current River bottomland, N side of Brown Rd, ca 0.7 mi SE of Van Buren new Hwy 60 bridge, T27N R01E SW1/4 SW1/4 S19, several plants 3 Aug 1994, *Darigo 1652* (MO); Chilton Creek Preserve, jct midrange and Rd 26, 26 Jul 1996, *George s.n.* (WARM). **Cass Co.:** Followed field T46N R30W S06, 7 Sep 1982, *DeLozier & Gibbs 325* (Powell); Oak woods, 15 Aug 1865, *Broadhead s.n.* (MO); Bottoms, flowers purple, plant 6 ft high, 11 Aug 1864, *Broadhead*, (MO). **Cedar Co.:** Wooded hillside, 6 mi SE of Cedar Springs, 18 Sep 1958, *Palmer 67974* (UMO); Wooded hillside, 6

mi SE of Cedar Springs, 18 Sep 1958, *Palmer 67969* (UMO); Thicket, along small stream, near Cedar Springs, 18 Sep 1958, *Palmer 67918* (UMO); Sandy disturbed soil used as fill, along bank of Cedar Creek, 16 mi SE of Eldorado Springs, 6 Sep 1966, *Stephens 9029* (KANU). **Chariton Co.:** Upper thickets on ridge along Chariton River, T53N R18W S26, 5 mi W of Shannondale, 15 Sep 1937, *Steyermark 26378* (MO). **Christian Co.:** Open bank, 1.5 mi NE of Logan, 1 Sep 1955, *Palmer 61098* (UMO); Rocky woods, 7 mi SW of Ozark, 16 Sep 1954, *Palmer 58904* (UMO); Rocky wooded slope along James River, 23 Aug 1981, *Redfearn 32725* (SMS). **Crawford Co.:** Low ground along Brush Creek at the McDade Springs, 21 Sep 1934, *Steyermark 15378* (MO, UMO). **Dade Co.:** Open woods, along small stream, 3 mi SE of Pennsboro, 14 Sep 1950, *Palmer 51078* (UMO); Rocky upland woods, near Turnback, 23 Jul 1951, *Palmer 52696* (UMO). **DeKalb Co.:** Prairie along railroad 2 mi W of Amity, 28 Aug 1934, *Steyermark 14951* (MO, UMO). **Dent Co.:** Rhysse, 5 Sep 1927, *Kellogg 939* (MO). **Douglas Co.:** Open rocky bank, along North Fork of White River, near Twin Bridges, 29 Sep 1955, *Palmer 61371* (UMO). **Dunklin Co.:** East Bertiz, 28 Sep 1897, *Trelease 231* (MO); Low open woods, 1 mi E of Senath, 1 Oct 1955, *Palmer 61538* (UMO); Along canalized creek, 2 mi N of Kennett, 1 Oct 1955, *Palmer 61512* (UMO). **Franklin Co.:** Highlands, Pacific, 19 Sep 1898, *Thompson s.n.* (MO); Oak-hickory forest, E of Central Junior College outdoor laboratory, 2 mi E of Union on Hwy 50, 14 Sep 1977, *Berg 11* (MO); Dry hillside, Meramec State Park, Sullivan, 7 Sep 1930, *Kellogg s.n.* (MO); Arboretum Experimental Prairie II (36.2 a.002), 600 m NE of Trail House at Missouri Botanical Garden Arboretum, Gray Summit, rolling clay loam soils, W slope, vegetation: *Sorghastrum nutans*, *Andropogon scoparius* experimental prairie started in 1981, 38°28' N, 90°49' W, alt 200 m, 24 Jul 1986, *Langendoen 123* (MO); Long Meadow, Gray Summit, Missouri Botanical Gardens, 17 Aug 1937, *Anderson 580* (MO); Grays Summit, 25 Aug 1925, *Kellogg 951* (MO); Prairie, Gray Summit Shaw Arboretum, 38°28'03"N 90°49'11"W, 2 m tall, purple flowers, 15 Aug 2000, *Naples 13* (MO); Near Webster, 30 Aug 1916 illegible collector name *3826* (MO); Creve Coeur Lake, 19 Aug 1905, *Johnson s.n.* (MO). **Greene Co.:** Bank of James River just above Lake Springfield, 13 Sep 1958, *Redfearn 4012* (SMS); Glade, Springfield Nature Center, 27 Sep 1986, *Humphrey 282* (SMS). **Harrison Co.:** Wooded ravines and prairie openings bordering W-facing slopes along Lotts Creek, T67N R29W S03, 1.5-1.75 mi NW of Hatfield, 16 Aug 1954, *Steyermark 76584* (UMO). **Henry Co.:** Edge of forest 4 mi E of Shawnee Mound, 8 mi NNE of Clinton, T43N R25W SW1/4 S09, at 1128 NE 301 Rd, 29 Jul 1998, *Krause 306* (WARM); Woodlands, Schmidt-Butler Farm, T43N

R25W S09, 10 mi NNE of Clinton and 3 mi E of Shawnee Mound, 30 Aug 1999, *Bishop 14* (WARM). **Holt Co.:** Roadside, jct US 159 and Hwy 111, 6 Aug 1967, *Goodnight 161-67* (Powell); Alluvial ground along Big Lake, Big Lake State Park, 3 mi W of Bigelow, flowers white, 1 Sep 1934, *Steyermark 15092* (MO); Wet meadows along Big Lake, Big Lake State Park, 3 mi W of Bigelow, 1 Sep 1934, *Steyermark 15109* (MO, UMO); TNC woodlands towards back, 2 Aug 1989, *Priesendorf 552 & 553* (WARM); Low open wooded area, 4 mi W of Mound City, 27 Aug 1980, *McGregor 31933* (KANU). **Howell Co.:** Mesic bottomland forest along river, some low fresh water marshes along river, Tingle Lake Conservation Area, ca 8 mi S of West Plains on South Fork of Spring River, T23N R08W S32, 4 Jul 1997, *Summers 8248* (MO); Edge of weedy field, 1 mi E of Pomona on Hwy N at first cross rds, T25N R09W SE1/4 S02, 27 Aug 1994, *Summers 6918* (MO); Tingle Lake Conservation Area, 2001, *Summers 9855* (MO); Dry rocky slope in oak woods, 4 mi S West Plains, 25 Jun 1955, *Kucera s.n.* (UMO). **Iron Co.:** Without locality, 22 Aug 1884, *Bush s.n.* (UMO); Iron Mountain Lake, 28 Aug 1927, *Kellogg 945* (MO). **Jackson Co.:** Courtney bottoms, 19 Sep 1916, *Bush 7796* (MO); Courtney, 27 Aug 1893, *Bush s.n.* (MO); Woods by Courtney, 20 Sep 1930, *Kellogg s.n.* (MO); Margin of woodland, along the Atherton-Sibley Rd, ca 5 mi W of Sibley, 13 Sep 1995, *Henderson 95-747* (MO, Powell). **Jasper Co.:** Rich upland woods, infrequent, Prosperity, 15 Aug 1919, *Palmer 15983* (Powell); E of Carthage, 18 Sep 1898, *Trelease 1036\** (MO); Frequent in dry ground near Myer's Spur, Webb City, 11 Sep 1909, *Palmer 2680\** (MO); Common in dry gravelly soil, Webb City, *Palmer 2641\** (MO); Common in dry woods near Midway Park, Joplin, 13 Sep 1909, *Palmer 2704* (MO); Dry woods, Scotland, 9 Sep 1906, *Palmer 788* (MO); Dry open woods, 4 mi S of Carthage, 28 Aug 1919, *Palmer 16209* (UMO); Rocky open ground, near Neck City, 19 Sep 1921, *Palmer 20515* (UMO-2 sheets); Rocky open ground, near Carthage, 12 Sep 1924, *Palmer 26106* (UMO); Low ground, open banks, near Galesburg, 8 Aug 1920, *Palmer 18633* (UMO); Dry open woods near Property, 10 Oct 1923, *Palmer 24096* (UMO); Thickets and clearings in upland woods, 2 mi SW of Neck City, 22 Aug 1949, *Palmer 49774* (UMO); Dry soil, Neck City, 8 Sep 1909, *Palmer 2641* (MO). **Jefferson Co.:** In dry upland woods, 2 mi SW of Crystal City, 29 Sep 1929, *Steyermark 1317 & 1320* (MO); Kimmswick, 6 Sep 1883, *Wislizenus s.n.* (MO); Nick's in bottoms, 5 Oct 1888, no collector (MO); Seckman in field, 28 Aug 1969, *Christ s.n.* (MO); Near Wilkes, 6 Sep 1887, *Eggert s.n.* (MO); Fields by Kimmswick, 6 Sep 1860, *Engelmann s.n.* (MO); Selma, 24 Sep 1927, *Kellogg s.n.* (MO); Wooded slopes and flats on dolomitic substrate near Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of De-

soto, T39N R03E S11, 38°07'30"N 90°40'30"W, alt 560 ft, common perennial, flowers small, 23 Aug 1986, *Raven 27333* (KANU, MO); Open meadow among woods on ridgetop, above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of Desoto, T39N R03E S11, 38°07'30"N 90°40'30"W, alt 600 ft, perennial, flowers dull bluish pink, 24 Aug 1986, *Raven 27337* (KANU, MO); Woods along dirt rd just above and W of Parker Creek, ca 0.3 mi NNE of its confluence with Big River, 6.5 mi W of Desoto, T39N R03E S11, 38°07'30"N, 90°40'30"W, alt 580 ft, petals very pale lavender, perennial herb, 27 Jul 1986, *Raven 27249* (MO); Grassland in E part of large pasture ca 0.3 N of confluence of Parker Creek with Big River, 6.5 mi W of Desoto, T39N R3E S11, 38°07'30"N 90°40'30"W, alt 190 m, perennial herb, flowers lavender, 5 Sep 1988, *Raven 27663* (MO); Open woods on cherty ridgetop above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of DeSoto 38°07'30"N, 90°40'30"W, T39N R03E, alt 600 ft, erect perennial, flowers pinkish-lilac, with *D. paniculatum* var. *dillenii*, *D. cuspidatum* and *D. canescens*, 2 Sep 1985, *Raven 26841* (MO); Limestone slopes and flats along Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of DeSoto, 38°07'30"N, 90°40'30"W, T39N R03E, alt 560 ft, flowers lavender, 27 Jul 1985, *Raven 26800* (MO); Limestone slopes and flats along Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of DeSoto, 38°07'30"N, 90°40'30"W, T39N R3E, alt 560 ft, flowers lilac-blue, low scattered perennial on wooded slopes near creek, 1 Sep 1985, *Raven 26835* (MO); Open meadow among woods on ridgetop with cherty substrate, above bluff near Big River, ca 0.1 mi NNE of its confluence with Parker Creek big meadow at cabin near 6.5 mi W of Desoto, T39N R3E S11, 38°07'30"N 90°40'30"W, alt 185 m, 3-4 Aug 1985, *Werff 7432* (MO, UMO); Near rd along S side of Mammoth Creek, floodplain of Big River, ca 0.1, above their jct, 6.5 mi W of DeSoto, T39N R3E S11, 38°10'30"N, 90°40'30"W, alt 170 m, 4 Sep 1988, *Raven 27653* (KANU, MO). **Johnson Co.:** Open Field, along the entrance drive into Powell Gardens, 28 Aug 1992, *Henderson 92-374* (MO, Powell); Margin of a wooded area along the entrance drive into Powell Gardens, 28 Aug 1992, *Henderson 92-380* (MO); Sandy field behind BiLo Supermarket; Warrensburg, 27 Sep 1969, *Castaner 275* (WARM); Lake Buteo, Knob Noster State Park, 1 Sep 1969, *Castaner 306* (WARM); Along paths in woods, Pertle Springs, Warrensburg, 31 Sep 1969, *Castaner 290* (WARM); Open area of tall grass W of Adam's Pond, Knob Noster State Park, 5 Aug 1972, *Mullikin 818* (WARM). **Laclede Co.:** Bottoms of Pine Creek Hollow, tributary to Gasconade River, 1.5 mi SW of Nebo, T33N R13W S22, 23 Aug 1937, *Steyermark 25163* (MO). **Lafayette Co.:** NW end of the Hig-

ginville City Lake, 23 Aug 1981, *Williamson s.n.* (Powell); Open bank, along railway, near Lexington, 28 Aug 1954, *Palmer 58784* (UMO); Dry soil, Wellington, 3 Sep 1927, *Bush 11521* (UMO). **Lawrence Co.:** Hillside woods, along spring brook, Cave Spring, 2 mi SW of Spencer, 17 Oct 1956, *Palmer 64589* (UMO); Thickets, dry upland, near Aurora, 9 Sep 1952, *Palmer 55010* (UMO); Open ground, along brook, Chesapeake, 7 Sep 1955, *Palmer 61224* (UMO); Thickets and open woods, 5 mi SW of Marionville, 29 Sep 1952, *Palmer 55257* (UMO); Sandy open banks, in RR cut through Pennsylvanian sandstone, 2 mi SE of Aurora, 6 Oct 1953, *Palmer 56978* (UMO); Wooded hillside, along spring brook, Cove Spring, 2 mi SW of Spencer, 17 Oct 1956, *Palmer 64574* (UMO); Sandy open banks, 2 mi SE of Aurora, 25 Aug 1953, *Palmer 56644* (UMO); Rocky open upland woods, along bluff of Spring River, Red Mill near Verona, 22 Aug 1950, *Palmer 50800* (UMO). **Lewis Co.:** Hills and ravines tributary to Grassy Creek, T60N R7W S29, 2.5-2.75 mi SW of Durham, 12 Aug 1955, *Steyermark 79142* (UMO). **Lincoln Co.:** Sherwood Prairie, slight rolling, clay loam soils, vegetation: *Sorghastrum nutans*, *Pycnanthemum tenuifolium*, natural prairie restoration, Plowed 40 years ago, 39°02'N 90°57'W, 14 Aug 1986, *Faber-Langendoen & M. Faber s.n.* (MO); Woods, Whiteside, 12 Sep 1911, *Davis 1073* (MO); Low ground along King's Lake, E of Apex, 29 Aug 1933, *Steyermark 8963* (MO); Kings Lake, 5 Sep 1969, *Christ s.n.* (MO). **Linn Co.:** Dry open glade-like area near bridge, 27 Sep 1985, *Castaner 8978* (MO); Camp Blue-Bird and bluffs of creek, 25 Jul 1985, *Castaner & Priesendorf 8650* (WARM). **Marion Co.:** Roadsides near Hannibal, 20 Aug 1914, *Davis 3939* (MO); Woody slopes, Mt. Olivet Cemetery, Hannibal, 13 Sep 1915, *Davis 6170* (MO-2 sheets); Thicket, Shultz pasture, N of Hannibal, 2 Sep 1914, *Davis 3686* (MO); Rich bluffs, River-view Park, 12 Sep 1914, *Davis 3686* (MO); Dry fields, near Mt. Olivet Cemetery, Hannibal, 14 Sep 1918, *Davis 9059* (MO); Near Mt. Olivet Cemetery, Hannibal, 17 Sep 1918, *Davis 9059* [SIC](MO). **McDonald Co.:** N-facing slope above Big Buffalo Creek, just W of Manning's Chapel Cemetery, ca 0.5 mi E of Tiff City, scattered among cherty limestone outcrops in small, medic, N-S-trending ravine, with ferns, *Cercis*, *Quercus*, and *Ulmus*, T22N R34W S4 SE1/4, alt 830 ft, corollas white, 11 Jul 1990, *Yatskievych 90-219* (MO); Dry woods, Noel, 13 Sep 1913, *Palmer 4327* (MO); Without locality, 1 Sep 1893, *Bush s.n.* (MO). **Mississippi Co.:** Low woods, near Big Oak Tree, 14 Oct 1937, *Kellogg s.n.* (MO); Margin of field near woods, 7 mi S. of Wolf Island, 2 Oct 1932, *Steyermark 8686* (MO, UMO); Small patch of woods on W side of Hwy A, T24N R16E S18, 4.5 mi (by air) SE of East Prairie, 21 Aug 1955, *Steyermark 79621* (UMO). **Monroe Co.:** Fairly dense undergrowth, herbs not very diverse, soil well drained,



loosely packed, not much clay, rocky in places, sparse, oak hickory woods, *Quercus alba*, *Carya ovata*, dominant species, evidence of selective cutting, not recent, alt 620 ft, T54N R9W SW1/4 S16, 16 Aug 1973, *Hinterthuer 743* (MO); Field abandoned for many years, some wild-life usage, large sugar maple and junipers with white ash saplings, *Rhus aromatica* and *Symphoricarpos orbiculatus* are shrubs, much diversity of herb layer, soil loamy, T54N R08W NW1/4 S9, 13 Jul 1973, *Hinterthuer 506* (MO). **New Madrid Co.:** Paw Paw Junction, 15 Sep 1893, *Bush s.n.* (MO); Alluvial ground along Little River near Lilbourn, 22 Aug 1933, *Steyermark 9175* (MO). **Newton Co.:** Without locality, 29 Aug 1893, *Bush s.n.* (MO); Thickets and fence-rows, George Washington Carver National Monument, 25 Aug 1959, *Palmer 68805* (UMO); Open upland, along fence-row, George Washington Carver National Monument, 27 Sep 1958, *Palmer 68808* (UMO); Rocky open woods, 3.5 mi SW of Joplin, 22 Aug 1951, *Palmer 53039* (UMO); Thickets, rocky upland, 3.5 mi SW of Joplin, 21 Aug 1951, *Palmer 53021* (UMO). **Oregon Co.:** N edge of Greer Spring Branch just up the from its jct with the Eleven Point River, Greer Spring Special Management Area, Mark Twain National Forest, T25N R03W NW1/4 NE1/4 S36, 28 Aug 1995, *Summers 7544* (MO); Wilderness refuge, 26 Sep 1946, *Dalke s.n.* (UMO). **Ozark Co.:** Along North Fork in vicinity of Blue Springs, 9 Aug 1963, *Redfearn 12983* (Powell). **Pemiscot Co.:** Open bank, along Mississippi River, Caruthersville, 2 Oct 1955, *Palmer 61582* (UMO). **Pettis Co.:** Grandfather Conservation Area, 9 mi SSW of Sedelia, 17 Aug 1998, *McCaughey 393 & 402* (WARM); Garden, near lawn and hay field, N of Sedelia on US 65, 6 mi right on Claycomb Rd and 0.25 mi on Co. Rt. K. Rhoad's residence, Longwood Township, 21 Sep 1999, *Rhoads 27* (WARM). **Phelps Co.:** Yancy Mills, 13 Aug 1927, *Rickett s.n.* (UMO). **Pike Co.:** Without locality, 10 Sep 1973, *Toney & Korschgen s.n.* (UMO); Open woods, Noirir farm, near Eolia, 26 Aug 1916, *Davis 3172* (MO); Cherty upper slopes, along tributary to Grass Creek, 5 mi W of Louisiana, T54N R02W S20, 6 Sep 1937, *Steyermark 25898* (MO). **Platte Co.:** NE section tower field, site 1, Little Bean Marsh, 15 Sep 1985, *Laplante 320* (MO); Southern tip wooded tip between depression, SE section area, site LBM 2, 9 Aug 1986, *Laplante 683* (MO); Wooded area NE section area, near *Salix* community, area 9, Little Bean Marsh, 13 Sep 1986, *Laplante 927* (WARM); Near entrance, near shore of Little Bean Lake, 31 Jul 1988, *Castaner 10123* (WARM). **Polk Co.:** Graydon Springs, Camp Wakahni, 30 Aug 1962, *Eggers 347* (SMS). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3075* (WARM); Roadside at base of dolomite outcrops in disturbed bottom-

land forest, just N of Gasconade River, 1.5 mi E of pavement end on private dirt rd leading E from Co. Hwy Y to cemetery at Portuguese Point, alt 750 ft, 15 Sep 1995, *Yatskievych & Smith 95-121* (MO). **Ralls Co.:** Dry rocky hills, Ilasco, 17 Sep 1913, *Davis 940* (MO-2 sheets); Dry woods, Oakwood, 9 Aug 1915, *Davis 3940* (MO); Oak hickory woods with much *Ostrya virginiana*, soil well drained, loose loam, rocky in parts not uniform, much bryophyte cover, much mulch, 17 Aug 1973, *Hinterthuer 764* (MO); Damp woods, Ilasco, 17 Sep 1913, *Davis 3917* (MO). **Randolph Co.:** Low ground along Silver Creek, 2 mi S of Huntsville, 3 Sep 1933, *Steyermark 9412* (MO); S side of Hwy 3, E of Middle Fork of Little Chariton River, T54N R16W S02, 3 Aug 1979, *Conrad 8347* (UMO); Deciduous woods, E of Thomas Hill, T55N R16W S36, 8 Aug 1979, *Conrad 8511* (NEMO); Old field, NEMO Coal Company strip mine, T54N R14W S04, 21 May 1981, *Conard 9202* (NEMO); Floodplain forest, W side of Middle Fork of the Little Chariton River, T54N R16W S10, 6 Aug 1979, *Conrad 8395* (NEMO); Upland deciduous woods, AECI stripmine, T55N R15W S19, 20 Aug 1981, *Conrad 9533* (NEMO); Floodplain, E of Middle Fork of the Little Chariton River, T54N R16W S11, 1 Aug 1979, *Conrad 8293* (NEMO). **Saline Co.:** Banks of Missouri River SE of Arrow Rock, near Cooper Co. line, 11 Oct 1936, *Steyermark 20414* (MO); Alluvial flats of Missouri River below Glasgow bridge on Hwy 20, 3 Sep 1933, *Drouet 1062* (UMO). **St. Charles Co.:** Roadsides, area between Teal Pond and Access Rd, along the Mississippi River, directly across from Alton, IL, adjacent to the Melvin Price Lock and Dam (26), Riverlands Environmental Demonstration Area (REDA), [US Army Corps of Engineers, St. Louis District], 38°52'30"N 90°11'40"W, herb, 0.5 m tall, flowers pink, 5 Sep 1992, *Zhu 1339* (MO); Opposite Alton, 8 Oct 1891, *Douglas s.n.* (MO). **St. Clair Co.:** Shaded sandstone slopes near top, along N side of Osage River, 2 mi N of Oyer, South Monegaw Springs, 3 Oct 1936, *Steyermark 20258* (MO). **St. Francois Co.:** Flat River, 28 Aug 1927, *Kellogg s.n.* (MO); Rocky open woods, N slopes of Simms Mountain, 2 mi S of Elvins, 4 Sep 1977, *Summers 357* (MO). **St. Louis Co.:** No locality, 18 Aug 1891, *Eggert s.n.* (UMO); In woods, rocky limestone hillside, along S side of Lower Creve Coeur Lake, 18 Oct 1930, *Steyermark 480* (MO); E of Missouri Botanical Garden, 7 Sep 1898, *Thompson s.n.* (MO); Near Allenton, 30 Aug 1887, *Eggert s.n.* (MO); Woods, Meramec Highlands, 29 Sep 1923, *Kellogg s.n.* (MO); Low meadow bordering Gravois Creek, Alton, 9 Sep 1977, *Summers 367* (MO); Forest Park, 3 Sep 1902, *Goehring s.n.* (MO); Forest Park, 28 Aug 1902, *Goehring s.n.* (MO); No locality, 1878, *Eggert s.n.* (MO); Hazelwood, 14 Sep 1956, no collector\* (MO); Clayton, no date, *Goehring 164* (MO); Clayton, no date, *Goehring 167* (MO); Meramec River, W of Allen-

ton, 30 Aug 1887, *Eggert*. (MO); Right-of-way of the Missouri-Pacific RR, N of Loughborough Ave, Carondelet Park, 21 Sep 1963, *Muhlenbach 2235* (MO); No locality, 17 Aug 1884, *Glatfelter s.n.* (MO); Without locality, 8 Sep 1841, *Geyer s.n.* (MO); Without locality, 1891, *Glatfelter s.n.* (MO); Woods, 23 Aug 1878, *Eggert s.n.* (MO); Open woods, Jul 1833, *Engelman 1065* (MO); Cliff Cave, 11 Oct 1908, no collector (MO); Valley Park, 9 Sep 1887, *Eggert s.n.* (MO); Without locality, 1878, *Eggert s.n.* (MO); One small colony, Baden freight yard of the MO-KS-TX RR, along the track of the eastern piggy back ramp, 2 Sep 1967, *Muhlenbach 2865* (MO); One small colony, right-of-way of the MO-Pacific RR, between the Broadway Station and Reilly Ave, 13 Sep 1958, *Muhlenbach 1489* (MO); Creve Coeur Lake, Oct 1913, *Vaughn s.n.* (MO); Valley Park, 9 Sep 1887, *Eggert s.n.* (MO); Grant's Farm, 21 Aug 1937, *Chandler 2723* (MO); Big Eddy Hill near Allenton, 10 Sep 1901, *Kellogg s.n.* (MO); Big Eddy Hill near Allenton, 10 Sep 1897, *Kellogg s.n.* (MO); Exposed gravel bar at W end of small, unnamed island near S bank of Meramec River, ca 1 mi NE of Crescent along Chubb Hiking Trail, T44N R4E SW 1/4 S21, alt 400 ft, common multi-stemmed perennial, 1 Sep 1991, *Yatskievych 91-204* (MO); Webster, 18 Aug 1891, *Eggert s.n.* (MO); Fairlawn, 19 Aug 1915, *Ledman 7* (MO); Forest Park, 4 Sep 1902, *Goehring s.n.* (MO); Clayton, *Goehring 166* (MO). **Ste. Genevieve Co.:** Mesic woods, large set of sandstone gorges with tall bluffs, via dirt rd off Co. Rd EE, Hickory Canyon Natural Area, 2 mi N of Sprott, alt 800-950 ft, 27 Jul 1989, *Mohlenbrock 8999* (MO). **Stoddard Co.:** Holly Ridge, 8 Oct 1975, *Taney & Korschgen s.n.* (UMO); Sand blowout area on N side of rd, openings in scrubby forest of *Quercus*, *Carya*, and *Sassafras* just E of Pleasant Valley Church at base of Crowley's Ridge in sandy soil on both sides of dirt rd, 3 air mi NE of Deter via dirt rds leading N from US Hwy 60, 2 m tall, alt 350 ft, T25N R11E N1/2 S06, 9 Sep 1992, *Yatskievych 92-347* (MO-2 sheets). **Sullivan Co.:** Forest along Rte HH, 0.6 mi E of Rte P, 28 Aug 1988, *Gleason 327* (NEMO). **Taney Co.:** Rocky hillside woods, Branson, 9 Sep 1918, *Palmer 14339* (MO); Bottom field, Drury Refuge, 21 Aug 1940, *Spencer s.n.* (UMO-2 sheets); Woods, 24 Sep 1899, *Bush 524* (MO). **Texas Co.:** Piney Fork, Cabool, 1 Sep 1927, *Rickett s.n.* (UMO). **Warren Co.:** Daniel Boone Forest, 29 Aug 1961, *Korschgen s.n.* (UMO). **Washington Co.:** Richwoods, 31 Aug 1927, *Chandler 2728* (MO); Bordering Big River, Washington State Park, T39N R03E S22 & S23, 8 mi NE of Old Mines, 27 Sep 1954, *Steyermark 77833* (UMO). **Wayne Co.:** 37° 00'N 90°25'W, 31 Aug 1994, *Bodine 19A* (MO); Lower part of N-facing wooded limestone slopes along St. Francis River, 8 mi E of Redman Creek, 0.75 mi SW of Wappapello, T26N R7E S03, 3 Sep 1938, *Steyermark 6494* (MO); Boy Scout Camp, 28 Jun 1972, *Sutter 748* (UMO).

***Desmodium pauciflorum* (Nutt.) DC.**

Southeast Missouri, Jul 1900, *Dimmitt s.n.* (UMO). **Bollinger Co.:** Shady, rather dry ground, Glen Allen, Jul 1897, *Russell s.n.* (MO); Fears Bluff bordering Mingo Swamp, T28N R09E S16 & E part S17, 3.5-4 mi SW of Greenbrier, 18 Sep 1954, *Steyermark 77723* (UMO). **Butler Co.:** Low woods along Mud Creek, T26N R07W S20, 2 mi NW of Rombauer, 7 Jul 1936, *Steyermark 11434* (MO); Wet bottom land forest, T25N R6E S21, 1 mi N of Poplar Bluff, 2 Sep 1991, *Summers & Dodds 4647* (MO); Bottomland forest with occasional swampy areas, Mud Creek Natural Area, Mark Twain National Forest, just W of Stoddard Co. line and ca 2 mi E of Co. Hwy T via dirt rd, ca 7 air mi NE of Poplar bluff, T26N R07E SW1/4 S26, *Yatskievych & Yatskievych 91-236* (MO). **Cape Girardeau Co.:** Juden Woods Pond, located ca 15 m N of MO Hwy 74, 2 km W of I-55, T03N R13E SW1/4 S14, 31 May 1979, *Haefner 460* (UMO). **Carter Co.:** Chilton Creek Preserve, protected slope above Chilton Creek Nature Conservancy Area, 1 Aug 1996, *George s.n.* (MO, WARM); Growing on a lower backslope-toe slope position, dry-mesic chert forest, 14 Aug 1996, *Becker 46* (UMO). **Cole Co.:** Base of slopes along Moreau River, T44N R11W S21 & S27, 1.5-2 mi SW of Jefferson City, 18 Aug 1937, *Steyermark 24913* (MO). **Douglas Co.:** Low wooded limestone slopes along Spring Creek, above Big Spring, near Roosevelt, T25N R11W S23, 17 Jul 1937, *Steyermark 23304* (MO). **Dunklin Co.:** Kennett, 23 Jul 1900 no collector (Daniels hand?) (UMO); Campbell, 13 Aug 1895, *Bush 192* (MO); East Bertig, 28 Sep 1897, *Trelease 233* (MO). **Franklin Co.:** Opposite Pacific, 4 Jul 1896, *Eggert s.n.* (MO). **Howell Co.:** Rich shady woods in bottom of large sinkhole, Harbeston Sink, Marvin Bussell property, ca 1 mi SE of Brandsville, *Summers 10044* (MO). **Iron Co.:** Shady woods, Iron Mt. Lake, 28 Aug 1935, *Kellogg s.n.* (MO). **Jasper Co.:** Low woods, Webb City, 26 Jul 1909, *Palmer 2555* (MO-2 sheets); Rich bluff woods, Midway Park, Joplin, 4 Aug 1909, *Palmer 2595* (MO); Rocky open woods, along Center Creek, near Belleville, 12 Aug 1950, *Palmer 50669-A* (UMO); Low open woods, near Galesburg, 24 Sep 1924, *Palmer 26242* (UMO); Rich upland woods, infrequent, Prosperity, 15 Aug 1919, *Palmer 15839* (UMO); Rich woods, near Carl Junction, 31 Aug 1920, *Palmer 18881* (UMO). **Jefferson Co.:** No locality, 26 Aug 1879, *Eggert s.n.* (MO, UMO); S of Eureka, 8 Aug 1969, *Christ s.n.* (MO). **Maries Co.:** No locality, 25 Jul 1975, *Torgerson s.n.* (UMO); Moist low ground along Paydown Spring Branch, near Paydown, 13 Oct 1935, *Steyermark 19918* (UMO). **McDonald Co.:** Rocky wooded banks, along Buffalo Creek, 6 mi SW of Goodwin, 11 Sep 1927, *Palmer 32726* (MO). **Mississippi:** Rich shaded alluvial ground, in Three States timber tract, 12 mi SW of Wolf Island, 3 Oct 1932, *Steyermark*

8096 (MO, UMO); Low woods, Three States Timberland, 3 Oct 1932, *Kellogg s.n.* (MO). **Newton Co.:** Low ground, Reading's Mill, 12 Aug 1908, *Bush 5083* (MO); Rich woods, along Little Buffalo River near Jasper, 19 Aug 1955, *Palmer 61030* (UMO); Rocky hillside woods, near Racine, 5 Aug 1956, *Palmer 63538* (UMO). **Oregon Co.:** Low woods along creek in Panther Hollow, Mark Twain National Forest, ca 11 mi E of Alton off Hwy AA on Forest Service Rd 4144 to Horse Trail Ride parking lot, T24N R02W S19, 6 Sep 1994, *Summers 6977* (MO); Base of N-facing bluff on the Eleven Point River, Cane Bluff Area, T25N R04W S32, 15 Aug 1981, *Summers 893* (MO); Along Little Hurricane Creek, vicinity of "Blue Hole," 2.5-3 mi E (by air) of Greer, T24N R03W S04 & S05, 23 Jul 1955, *Steyermark 78869* (UMO). **Osage Co.:** Base of slopes in rich soil, SW-facing wooded limestone bluffs with chert and sandstone exposure on top, along E side of Osage River, T43N R11W S20 & S29, 3.5-3.75 mi NW of Folk, 20 May 1956, *Steyermark 81227* (MO, UMO); Low woods along Maries River, 4 mi N of Westphalia, T43N R10W S02 & S03, 4 Jun 1938, *Steyermark 5789* (MO). **Ozark Co.:** N-facing wooded slopes with sandstone ledges and boulders along S side of Bryant Creek, 3-3.5 mi SSE of Rockbridge, T24N R13W S11, 19 Aug 1956, *Steyermark 82326* (UMO). **Pemiscot Co.:** Virgin woods on level ground, on property of Son Rone, 3 mi S SW of Portageville, T20N R12E S12, 29 Jul 1956, *Steyermark 82260* (MO, UMO). **Perry Co.:** Open canopy, low, mesic hardwoods, Survey 2175, along Patton Creek, 2.9 mi on gravel Rd S of Co. Rt. A, T34N R14E S02, 20 Jul 1985, *Brant 662* (MO). **Pulaski Co.:** Base of limestone wooded slopes along N-facing side of Gasconade River, between Laquey and Richland, 6 Oct 1935, *Steyermark 19865* (MO); Rich low ground at base of limestone bluffs along N side of Gasconade River, 2 mi NW of Waynesville, 28 Jul 1935, *Steyermark 19334* (MO, UMO); Low woods in ravine tributary to Big Riney River, NW of Ansley Spring, 11 Aug 1935, *Steyermark 19454* (MO). **Ripley Co.:** Base of limestone woods along jct of Current River and Tucker Bay Spring Branch, T25N R01E S3, 5 mi NE of Bennett, 17 Jul 1936, *Steyermark 11922* (MO); Low rich woods along Buffalo Creek, 4 mi E of Bennett, 7 Aug 1934, *Steyermark 14324* (MO); Base of wooded lime slopes along spring branch of Jake's Valley, on E side of Current River, T25N R01E S34, SW of Grandin, 16 Jul 1936, *Steyermark 11852* (MO); Upland sinkhole pond, Cupola Gum Pond National Natural Landmark, SE of Handy in Mark Twain National Forest, T25N R01W NE1/4 SW1/4 S29, 14 Jun 1979, *Haefner 964* (UMO); Vicinity of Little Black River, between Brown Ford and Butler Co. line, T24N R04E S28 & S29, 3-4.5 mi (by air) NW of Fairdealing, 18 Aug 1955, *Steyermark 161769* (UMO). **Scott Co.:** Shaded woods, Benton, 20 Aug 1933, *Kellogg*

26088 (MO, UMO); Wooded dissected slopes along Sandy Creek with shaley gravel on SW part of Crowley Ridge, 1.5 mi NW of Morley, T28N R13E S28, 21 Aug 1954, *Steyermark 76851* (UMO). **Shannon Co.:** Round Spring Branch by campground, T30N R04W S19, 16 Aug 1979, *Korschgen s.n.* (UMO); Edge of oak-hickory forest near Current River, Paint Rock Access of Ozark National Scenic Riverways, ca 5 mi W on dirt rd from Hwy. D at point 1 mi W of Hwy 21 intersection, ca 8 mi S of Ellington, T28N R01W SE1/4 NW1/4 S04, 5 Aug 1994, *Darigo 1670* (MO); Carr Creek State Forest, on W side of Co. Rte HH, S of MO Hwy 106, ca 7 mi SW of Ellington, NW-facing dolomite and chert slope along Spring Hollow, on E side of gravel rd, T29N R02W NE4 S26, 28 Jul 1992, *Yatskevych & Smith 92-264* (MO). **St. Francis Co.:** Oak hickory forest, 25 Jul 1978, *Cabush 763* (MO); Open canopy bottomland forest, floodplain and slopes above Indian Creek to the N of Iron Mountain Lake, 37°42'N 90°37'W, alt 317 m, 4 Aug 1993, *Brant 2563* (MO). **St. Louis Co.:** Saiklaus Station, 25 Jul 1891, *Eggert s.n.* (MO); Woods, 26 Aug 1879, *Eggert s.n.* (MO); Woods at Meramec Station, 22 Jul 1879, *Eggert s.n.* (MO-3 sheets); Fern Glen, 17 Jul 1900, *Johnson s.n.* (MO); Woods, Valley Park, 22 Jul 1879, *Eggert s.n.* (MO); Waldern, 26 Aug 1879, *Eggert s.n.* (MO); Meramec, 10 Jul 1897, *Eggert s.n.* (MO). **Ste. Genevieve:** Mesic forest along intermittent drainage of dissected limestone uplands, ca 4 mi NW of Ste. Genevieve, T38N R08E SW1/4 S02, 21 Aug 1986, *Smith 2210* (MO). **Stoddard Co.:** Essex, 18 Jul 1900, *Dimmitt 260* (UMO); Lower wooded slopes on remnant of Ozark area, N of Puxico, 11 Jul 1937, *Steyermark 11642* (MO); Along creek bottom in wooded sandy ravine on Crowley Ridge, 0.25 mi SW of Guam, 6 mi NE of Bloomfield, T26N R01E S14, 23 Jun 1955, *Steyermark 78641* (UMO). **Stone Co.:** Along Horseshoe Bend of White River, on W and S side of river, vicinity of Cedar Hollow, 3.25-3.5 mi (by air) E of Viola, T22N R24W S34, 14 Jul 1956, *Steyermark 81954* (UMO); Mouth of Indian Creek and bluffs of White River, near Baxter, 22 Aug 1935, *Steyermark 19510* (MO); Low slopes of wooded limestone bluffs along E side of White River, S of mouth of Big Creek, N of Mill Creek, 26 Aug 1935, *Steyermark 19655* (MO). **Taney Co.:** Wooded slope, Drury Refuge, 2 Sep 1940, *Spencer 100* (UMO); Wooded slope, Drury Refuge, 2 Sep 1940, *Spencer s.n.* (UMO). **Wayne Co.:** Low woods along Allison Hollow, T26N R7E S32 & S33, 3 mi SE of Chaonia, 29 Aug 1938, *Steyermark 6216* (MO); Lower part of N-facing wooded slopes along St. Francois River, just SE of mouth of Redman Creek, 0.75 mi SW of Wappapello, T26N R07E S03, 3 Sep 1938, *Steyermark 6474* (MO).

***Desmodium perplexum*** B.G. Schub.

No locality, Sep 1833, *Bayrich s.n.* (MO). **Adair Co.:** 4.8 mi SW of Kirksville, 13 Aug 1968, *Conrad 4965* (NEMO, UMO); Old field, W of Hwy 63 just S of Kirksville city limits, Northeast Missouri State University ecology plots, Jun 1987, *Ford s.n.* (NEMO); Ridgetop at margins of woods, 2.7 mi SW of Kirksville, 10 Sep 1974, *Conrad 7338* (NEMO); Ecology plot at college farm, 23 Jun 1983, *Weigand, s.n.* (NEMO); 4.8 mi SW of Kirksville, 3 Sep 1968, *Conrad 5008* (NEMO); Creek area at S end of Thousand Hills State Park, 4.3 mi SW of Kirksville, 26 Sep 1977, *Conrad 7805* (NEMO). **Andrew Co.:** Country Club Village, along Belgrade Rd, 30 Aug 1971, *Galloway 1829* (MWSJ-2 sheets); Woodland, T59N R36W S08, 15 Sep 1982, *Delozier 436* (Powell). **Audrain Co.:** Along S- and SE-facing exposed limestone bluffs along South Fork of Salt River, T53N R08W S33, 2.5 mi S of Santa Fe, 15 Sep 1954, *Steyermark 77404* (UMO). **Barry Co.:** Rocky woods, Viola, 2 Oct 1935, *Bush 15269* (MO); Wood's edge N of the hatchery and cabins, Roaring River State Park, 23 Aug 1979, *Hornberger 792* (SMS); Stream bank of river from Horseshoe Bend to eastern boundry, Roaring River State Park, 10 Aug 1979, *Hornberger 673* (SMS). **Barton Co.:** Dry bank, along railroad, near Golden City, 12 Sep 1956, *Palmer 64009* (UMO); Thickets, sandy ground, along small stream, 1.5 mi SE of Nashville, 8 Oct 1951, *Palmer 53248* (UMO); Open upland woods, 2 mi NE of Milford, 22 Sep 1951, *Palmer 53123* (UMO); Open upland woods, 5 mi ENE of Lamar, 6 Sep 1950, *Palmer 50960* (UMO); Open prairie, Prairie State Park, 24 Aug 1996, *Timme 13537* (SMS). **Bates Co.:** Low area, woodland, ca 2.5 mi N of Ballard on MM, 17 Aug 1975, *Castaner 4382* (MO, UMO). **Benton Co.:** Open grassy limestone rock outcrop behind camping area house, T41N R23W SW1/4 SW1/4 SE1/4 S34, 7 Jul 1985, *Baldwin 143* (MO). **Boone Co.:** Wooded area near old home site at BFCR parking lot, Rock Bridge State Park, 30 Aug 1989, *Ryan 1406* (UMO); Open woods, wild places in Columbia, Cemetery, Columbia, 9 Sep 1933, *Drouet 1124* (UMO); Oak woods, Columbia, Jul 1903, *Daniels s.n.* (UMO); Sep 1926, *Rickett s.n.* (UMO-2 sheets); Rocky banks along Hinkson Creek E of Old Waterworks Dam, Columbia, 23 Aug 1933, *Drouet 1005a* (UMO); Upland sinkhole pond surrounded by oak-hickory forest, Coates Pond, SW of Barclay Branch of Perche Cr., T49N R14W SE1/4 NE1/4 S26, Owned by Larry Coates, 28 May 1979, *Haefner 354* (UMO); Rich soil, Columbia, Aug 1902, *Daniels s.n.* (UMO); Bottoms of Low Creek, T49N R13W S35, 16 Aug 1933, *Drouet 972* (UMO); Weedy parking along Broadway just E of East Parkway, Columbia, 22 Sep 1933, *Drouet 1196* (UMO); Country Club East, 21 Aug 1927, *Dickson s.n.* (UMO); Rich soil, Columbia, 17 Aug 1902, *Daniels s.n.* (UMO); Rock-

bridge, 17 Sep 1927, *Rickett s.n.* (UMO). **Buchanan Co.:** Growing in shady, grassy meadow, 14 Sep 1972, *King 188* (MWSJ); Woodland bluffs along the handicapped trail, 3 Sep 1988, *Ellis 53* (MWSJ). **Butler Co.:** Rocky upland woods, Poplar Bluff, 11 Jul 1919, *Palmer 16350* (MO); Margin of open canopy fen, 1.5 mi E of State Hwy W on S side of Co. Rd 542 between rd and power line and bottoms of Hickory Creek, Poplar Bluff Bottomland Hardwood Natural Area, T25N R06E NE1/4 NE1/4 S15, 24 Aug 1994, *Brant 3077* (MO); Mature second-growth pine forest on ridgetop, plants on side of trail, T25N R05E SW1/4 S29, 4 Oct 1994, *Rowan 1291* (MO). **Callaway Co.:** Natural prairie, Tucker Prairie, 5 mi W of Kingdom City on Hwy 70, mesic brown loam, hardpan soils, vegetation: *Andropogon scoparius*, *Andropogon gerardii*, *Solidago graminifolia*, 30 Jul 1986, *Faber-Langendoen 90* (MO); Limestone slopes along Stinson Creek, 3 mi SE of Fulton, T47N R09W S34, 10 Sep 1937, *Steyermark 26129* (MO). **Camden Co.:** Margin of a woodland, E exposure, on Tehmauss farm, T39N R19W S25, 29 Aug 1969, *Myers s.n.* (Powell); Along Hwy D, Ha Ha Tonka State Park, 22 Sep 1986, *Groves 2006* (SMS). **Carter Co.:** Clubhouse, 9 Sep 1897, *Trelease 237* (MO); Upland sinkhole pond, marshy habitat surrounded by scarlet oak-hickory forest, Peck Ranch Sinkhole Pond Natural Area, in Peck Ranch Wildlife Area, T27N R02W SE1/4 S11, 7 Jun 1979, *Haefner 768* (UMO). **Cass Co.:** Shaded roadside T46N R20W S06, 7 Sep 1982, *Delozier & Gibbs 323* (Powell); In marshy area between two small lakes of Pleasant Hill Country Club, 11 Aug 1973, *Norton 284/73* (Powell); Bottoms-woods, 18 Aug 1879, *Broadhead s.n.* (MO). **Cedar Co.:** Moist, sandy, disturbed soil along a small creek, 4.5 mi S of Eldorado Springs, 6 Sep 1966, *Stephens 9024* (KANU). **Christian Co.:** Common on rocky wooded slopes, along James River near Shelf Cave, T28N R02W S34, 23 Aug 1981, *Redfearn 32725* (MO); Upper cherty slopes along ravine tributary to Blue Creek, 2 mi S of Saunders, T25N R20W S22, 10 Jul 1937, *Steyermark 23234* (MO); Rocky bank, along RR near Ozark, 6 Oct 1956, *Palmer 64424-B* (UMO); Rocky bank; border of woods, 8.5 mi E of Spokane, 1 Sep 1955, *Palmer 61126* (UMO). **Clark Co.:** Dry-mesic W-facing prairie slope, Edith Johnson, T66N R07W SE1/4 S29, 29 Jun 1998, *McHale 384* (MO); Abundant in high woods near co. line, 2 mi NW of Wyaconda, 17 Oct 1934, *Drouet 1815* (UMO). **Clay Co.:** Roadside embankment, along I-35, ca 1 mi N of Kearney, 12 Aug 1994, *Henderson 94-706* (MO, Powell). **Cole Co.:** Jefferson City, Sep 1871, *Krause s.n.* (MO). **Crawford Co.:** Roubidoux sandstone slopes along Brush Creek at McDade Springs, 21 Sep 1934, *Steyermark 15418* (MO); Moist meadow along Shoal Creek, T36N R02W S15, 19 Aug 1936, *Steyermark 21061* (MO). **Dade Co.:** Rocky open woods, along Sac River, 2 mi S of Dadeville, 24

Sep 1952, *Palmer 55155* (UMO). **Dent Co.:** Dam of sewage lagoon, Montauk State Park, 18 Jul 1974, *Maupin 728* (SMS, UMO). **Franklin Co.:** Deep shaded woods, on W section of L'Abbadie Trace, ca 150 m W of trail house, 38°27'58"N 90°49'20"W, 11 Sep 1972, *Sharp 33* (MO); SW-facing slope, SE of Pinetum Lake, Gray Summit, Botanical Garden Arboretum, alt 600 ft, herbs to 2 ft, flowers lilac, 17 Sep 1970, *Andreasen 43* (MO); Area near Gray Summit, 15 Sep 1987, *Christ s.n.* (MO); Long Meadow, 22 Aug 1937, *Anderson 580* (MO); Scattered in woods and on shaded roadsides, along Circuit Rd, 10 m N of W bridge over Brush Creek, Gray Summit, flowers bright pink, 28 Jul 1973, *Sharp 316* (MO); Wet prairie, Crawfish Flat, Missouri Botanical Garden Arboretum, 10 Sep 1967, *Croat 3940* (MO); Clipped prairie near entrance, Missouri Botanical Garden Arboretum, 10 Sep 1967, *Croat 3875* (MO); Garden weed, Gray's Bottoms, Glendale, 17 Sep 1956, *Comte 881* (MO); Shaw Arboretum of the Missouri Botanical Garden, near Gray Summit, T43N R02E S17, 4 Sep 1986, *Vahidy 4* (MO). **Gentry Co.:** Natural prairie along Rd Z, 2.8 mi W of Berlin, T61N R31W NE1/4 S33, 20 Jul 1954, *Steyermark 76308* (UMO). **Greene Co.:** No locality, 6 Aug 1889, *Blankinship s.n.* (MO). **Harrison Co.:** Along Fox Creek, T62N R26W S09, 5-5.75 mi NE of Gilman, 16 Aug 1954, *Steyermark 76515* (UMO). **Henry Co.:** Shaded roadside, 7 Sep 1982, *Delozier 365* (Powell); Shaded fencerow, T42N R26W S35, 7 Sep 1982, *Delozier 354* (Powell); Waste land, 10 mi E and 1 mi N of Clinton, 23 Aug 1969, *Stevens 36285* (KANU). **Howell Co.:** Oak woods with cherty, sandstone acid soil, ca 1.5 mi E of Noble Lake on Spring Creek, up stream from Hwy AP bridge, Mark Twain National Forest, T26N R10W S30, S29 & S20, 11 Sep 1994, *Summers 7062A* (MO). **Jackson Co.:** Prairie/woodland, Kansas City, 10 Sep 1964, *Saeger s.n.* (Powell); Prairies, Greenwood, 30 Aug 1905, *Bush 3287* (MO); Little Blue, common, 22 Jul 1896, *Bush 525* (MO); Hillsides, Swope Park Kansas City, 15 Oct 1930, *Kellogg s.n.* (MO); Rocky woods, Lees Summit, 5 Sep 1933, *Bush 12980D* (UMO); Prairies, Holmes Park, 13 Aug 1933, *Bush 12865* (UMO). **Jasper Co.:** Low ground, Webb City, 23 Aug 1905, *Palmer 765* (MO); Common along rocky branch, Scotland, 12 Sep 1909, *Palmer 2687* (MO); Rocky open woods, 2 mi NW of Joplin, 31 Aug 1960, *Palmer 69233* (UMO-2 sheets); Dry open ground, near Neck City, 19 Sep 1921, *Palmer 20516* (UMO); Dry prairie, Webb City, 11 Sep 1909, *Palmer 2678* (KANU). **Jefferson Co.:** Dry upland woods, near Meramec River, 6 mi SE of Pacific, 22 Sep 1929, *Steyermark 1321* (MO); The Cedars, Barnhart, 25 Aug 1919, *Greenman 4460* (MO); In field, Seckman, 29 Aug 1969, *Christ s.n.* (MO); Wooded area with limestone outcrops, 2 mi E of Antonia on Hwy M, abundant, 24 Sep 1967, *Croat 4019* (MO); Wooded slopes and flats on dolomitic substrate near Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of DeSoto, T39N R03E S11, alt 560 ft, 23 Aug 1986, *Raven 27336* (MO); Near rd along S side of Mammoth Creek, floodplain of Big River, ca 0.1 mi above their jct, 6.5 mi W of DeSoto, T39N R03E S11, rare perennial, flowers violet, 4 Sep 1988, *Raven 27651* (MO); Limestone slopes and flats along Parker Creek, ca 0.35 mi NNE of its confluence with Big River, 6.5 mi W of DeSoto, alt ca 560 ft, flowers purple, 2 Sep 1985, *Raven 26867* (MO); Open woods on cherty ridgetop, above bluff near Biff River ca 0.1 mi NNE of its confluence with Parker Creek, 6.5 mi W of DeSoto, alt ca 600ft, erect perennial, flowers pinkish-lilac with *D. paniculatum* var. *paniculatum*, but flowers larger, also with *D. canescens* and *D. cuspidatum*, 2 Sep 1985, *Raven 26842* (MO). **Johnson Co.:** Margin of a wooded area along the entrance drive into Powell Gardens, 28 Aug 1992, *Henderson 92-380* (Powell); Upland thicket, 1 mi SE of Fayetteville, 8 Sep 1957, *Palmer 66548* (UMO); Wooded area along Equestrian Trail, Knob Noster State Park, 6 Jul 2000, *McCauley 868* (WARM). **Laclede Co.:** Upper sandstone wooded slopes along Creek Hollow tributary to Gasconade River, 1.5 mi SW of Nebo, T33N R13W S22, 23 Aug 1937, *Steyermark 25170* (MO); Lightly shaded cherty upper slope along N side of Poker Hollow Ravine, Bennett Spring State Park, 7 Sep 1981, *Ladd 5627* (SMS). **Lewis Co.:** Along E fence line and along roadside, PNFS, John Wood Prairie, T62N R07W NE1/4 SW1/4 S20, 10 Jul 1998, *McHale 452* (MO). **Lafayette Co.:** Dissected wooded ravines tributary to Missouri River hills, 2.5-2.75 mi NE of Lexington, T51N R27W S24, 9 Oct 1956, *Steyermark 83129* (UMO); Dissected wooded ravines tributary to Missouri River hills, 2.5-2.75 mi NE of Lexington, T51N R27W S24, 9 Oct 1956, *Steyermark 83135* (Powell, UMO); Dry banks, Wellington, 3 Sep 1927, *Bush 11522* (UMO). **Lawrence Co.:** Rocky wooded bank, along Spring Brook, Cove Spring, 2 mi SW of Spencer, 17 Oct 1956, *Palmer 64588* (UMO); Low roadside, along Alt. US Hwy 50, ca 3 mi W of Lawrenceville, 28 Aug 1962, *Henderson 62-1020* (Powell); Open banks of RR cut through Pennsylvanian sandstone, 2 mi SE of Aurora, 25 Aug 1953, *Palmer 55609* (UMO). **Lincoln Co.:** King's Lake, 5 Sep 1969, *Christ s.n.* (MO). **Linn Co.:** Oak-hickory woodland, 5.5 S of Laclede and 1 mi W of Forker, 28 Aug 1975, *Musser 6* (MWSJ). **Livingston Co.:** Fountain Grove area, 11 Sep 1969, *Korschgen s.n.* (UMO). **Macon Co.:** Woods along East Fork of Chariton River, 1.75-2 mi NE of Ardmore, T56N R15W E part S13 & S18, 15 Sep 1954, *Steyermark 77361* (UMO). **Maries Co.:** Cherty, wooded upper slopes along Gasconade River, 2.5 mi NE of Nienna, T40N R09W S15, S10 & S11, 29 Aug 1937, *Steyermark 25552* (MO). **Marion Co.:** RR tracks, Helton, 12 Sep

1914, *Davis 3273* (MO); Dry bluffs, Helton Station, 12 Sep 1917, *Davis 3273* (MO). **McDonald Co.:** Hillside woods, Noel, 13 Sep 1913, *Palmer 4290* (MO); Open woods, 15 Sep 1936, *Bush 15778* (MO); Rocky open woods, 3 mi E of McNatt, 29 Oct 1954, *Palmer 69340* (UMO). **Monroe Co.:** T45N R08W SW1/4 S6, common, 30 Aug 1973, *Hintertuer 899* (MO). **Morgan Co.:** Along Hwy W ca 0.25 mi S of jct with Hwy Y, 29 Aug 1969, *Redfearn 26489* (SMS). **Ozark Co.:** Woods, Pontiac, 20 Sep 1929, *Kellogg s.n.* (MO); At extreme S end of W-facing limestone bluffs along North Fork (now part of Norfork Lake), 1.5 mi S of Udall, T21N R12W S02, 4 Sep 1955, *Steyermark 79630 & 79631*(UMO). **Pettis Co.:** Old field, 4 Sep 1934, *Bush 13855* (MO); N-facing wooded limestone bluffs and slopes along Muddy Creek, 2.5-3 mi SE of Lookout, 7 mi (by air) NE of Beaman, T47N R20W SW1/4 S25, SE1/4 S26, NE1/4 S35 & NW1/4 S36, 26 Sep 1955, *Steyermark 80256 & 80257* (UMO). **Phelps Co.:** Gravel bars on Little Piney Creek, 1 mi SE of Yancy Mills, T35N R08W S04, 26 Aug 1991, *Summers 4618* (MO, NEMO); Gravel bars on Little Piney Creek, 6 mi SE of Edgar Springs, T35N R08W NE1/4 S21, 30 Aug 1991, *Summers 4635* (MO); Yancy Mills, 13 Aug 1927, *Rickett s.n.* (UMO-2 sheets); Blossom Rock Trail, Lane Spring Recreation Site, Mark Twain National Forest, 11 Jul 1993, *Edmond 267* (UMO). **Polk Co.:** Open bank, along Pomme de Terre River, near Burns, 18 Sep 1957, *Palmer 66771* (UMO); Rocky open woods, 2 mi N of Brighton, 24 Sep 1957, *Palmer 66894* (UMO); Rocky open bank, along creek, near Graydom Springs, 25 Sep 1956, *Palmer 64143* (UMO); Open bank, 4 mi E of Bolivar, 18 Apr 1958, *Palmer 66847* (UMO). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3078* (WARM); Bald Ridge woodland restoration area, W of Bald Ridge Creek, Mark Twain National Forest, ca 2.5 mi NE of Evening Shade, in recently treated wildlife area on ridge at N end of unit, plot #1 transect A, T34N R11W SE1/4 S35 & SW1/4 S36, 11 Aug 1992, *Ladd 16783* (MO); Roadside at base of dolomite outcrops, in disturbed bottomland forest, 1.5 mi E of pavement end on private dirt rd leading E from Co. Hwy Y to cemetery at Portuguese Point, just N of Gasconade River, plants scattered, stems to 1 m tall, T37N R11W NW1/4 S35, alt 750 ft, 15 Sep 1995, *Yatskievych 95-119* (MO); Old field, near Cookeville, in Cannon Range, T34N R12W S24, parent rock chert, soil Hartville silt loam, 21 Jul 1989, *Ovrebø W0594* (MO, SMS). **Ralls Co.:** S of Oakwood, 4 Jul 1914, *Davis 3350* (MO); Meadows, near Oakwood, 7 Jul 1914, *Davis 3350* (MO). **Randolph Co.:** Bottomland deciduous forest, NEMO Coal Company stripmine, T55N R14W S20, 25 Aug 1981, *Conrad 9231* (NEMO); Roadside near small creek,

stripmine, T54N R15W S07, 30 Jul 1979, *Conrad 8092, 8126 & 8145* (NEMO); Bottomland, Middle Fork of the Chariton River, NW side of Hwy 3, S of Thomas Hill Reservoir, T55N R16W S35, 24 Jul 1985, *Conrad 10451* (NEMO). **Ray Co.:** Roadside embankment, along MO Hwy 13, ca 5 mi S of Polo, 18 Aug 1995, *Henderson 95-474* (MO, Powell). **Reynolds Co.:** Base of E-facing wooded slope in moist soils and dolomite outcrops, N side of Co. Hwy K on W side of Black River, T31N R3E NW1/4 SW1/4 SW1/4 S30, 10 Aug 1992, *Ryan 2052* (MO); Open gravelly pine-oak woods, Johnson's Shut-ins State Park, 19 Aug 1975, *Nelson 1046* (SMS); Old logging road on dolomite substrate, Johnson's Shut-ins State Park, 28 Jun 1975, *Nelson 517* (SMS). **Scotland Co.:** Rich slightly rolling wooded hills along tributary to Little Fox River, on SW side of rd, T67N R10W S34, 3.75-4 mi NE of Azen, 11 Sep 1954, *Steyermark 77146* (UMO). **Scott Co.:** Woods, near Benton, 6 Oct 1935, *Kellogg s.n.* (MO). **Shannon Co.:** Scattered on open gravel bar on S bank Jack's Fork River, ca 3 mi E of bridge at Hwy 17, T27N R06W NE1/4 S5, alt 820 ft, with *Platanus*, *Salix*, and *Cornus*, erect stems unbranched to 2 meters tall, 19 Aug 1989, *Yatskievych & Yatskievych 89-302* (MO); Alley Spring, 2 Sep 1929, *Rickett s.n.* (UMO); Near river, Ozark National Scenic Riverways, station 30 site 1, 20 Sep 1969, *Redfearn 1518* (SMS); Steep N-facing wooded slope and ridge above Current River, 21 Sep 1969, *Redfearn 1544* (SMS); Small N-facing gravel bar, Current River just upstream of Pulltite Access Area, 14 Jul 1970, *Witherspoon 819* (SMS). **St. Charles Co.:** 3 mi W of St. Peters exit off Hwy 70 on North Outer Rd, along RR right-of-way, 2 Sep 1970, *Andreasen 25* (MO). **St. Francois Co.:** Flat River, 28 Aug 1927, *Kellogg s.n.* (MO); Old field and swampy pond margin, NE of the jct of US Hwy 67 and MO Hwy 47, E of Bonne Terre, plants ca 1 meter tall, 29 Aug 1976, *Buofford 18893* (MO). **St. Louis Co.:** Cliff Cave, 26 Jul 1891, *Eggert s.n.* (MO); Creve Coeur Lake, Sep 1923, *Wolpert 159* (MO); Low mesic forest along N bank of Meramec River, SW of Twin Oaks, near end of Kefir Creek Rd, Castlewood State Park, with *Populus*, *Acer*, *Platanus*, *Celtis*, *Quercus*, and *Asimina*, alt 400 ft, common, erect, under trees, 13 Sep 1987, *Yatskievych 87-28* (MO); Baden freight yard of the Missouri-Kansas-Texas Railroad, between the tracks of both eastern and piggy back ramps, one small colony, 2 Sep 1967, *Muehlenbach 2868* (MO); No locality, 8 Sep 1841, *Geyer s.n.* (MO); Open woods, common, Aug 1839, *Engelmann s.n.* (MO); Open woods, Sep 1833, *Engelmann s.n.* (MO); Ladue, 12 Aug 1883, *Wislizenus 86* (MO); Open woods W of St. Louis, Aug 1842, *Engelmann s.n.* (MO); Gray's Bottoms, Windsor Forest, Kirkwood, 28 Aug 1956, *Comte 823* (MO); Disturbed and mowed areas, Litzsinger Road Ecology Center, Litzsinger Rd, Ladue, 20 Aug 1992, *Ochs 225* (MO); On a large area

between both branches of the right-of-way of the Terminal RR Association W of Arlington Avenue, opposite St. Louis Surface and Paint Company, 17 Sep 1955, *Muehlenbach 793* (MO); Old fields, Meramec Highlands, 25 Sep 1922, *Kellogg s.n.* (MO); Fields along fences in the dry hilly country W of St. Louis, Aug 1842, *Engelmann 18186* (MO); No locality, 18 Aug 1891, *Eggert s.n.* (MO); Carson Corner Lake, 17 Sep 1898, *Thompsons s.n.* (MO); Margin of ponds W of St. Louis, Aug 1842, *Engelmann s.n.* (MO); West Webster, 30 Aug 1916, *Greenman 3826* (MO); Meramec, 4 Sep 1886, *Eggert s.n.* (MO); Woods in Glendale, 16 Aug 1893, *Eggert s.n.* (MO); No locality, Sep 1858, *Engelmann s.n.* (MO); No locality, 1895, *Glatfelter s.n.* (MO); No locality, 1889, no collector (MO); Lackland Station, 25 Jul 1891, *Eggert s.n.* (MO); Creve Corner Lake, Oct 1913, *Vaughn s.n.* (MO); Creve Coeur Lake, 17 Sep 1898, *Thompson s.n.* (MO); Webster, 18 Aug 1891, *Eggert s.n.* (MO). **Ste. Genevieve Co.:** Dry, rocky woods in large set of sandstone gorges with tall bluffs, Hickory Canyon Natural Area, L-A-D Foundation Property, ca 2 mi N of Sprott, via dirt rd off Co. Rd EE, T37N R6E S25, 800-950 ft, 16 Jun 1989, *Mohlenbrock 8998* (MO). **Stoddard Co.:** Sandy prairie and slopes on E side of rd and eroded gully, Crowley's Ridge, T26N R10E S31, 3.5 mi SE of Bloomfield, 17 Oct 1955, *Steyermark 80359* (UMO). **Sullivan Co.:** Native prairie, NW of Milan, T64N R21W S36, 31 Aug 1990, *Broyles s.n.* (NEMO). **Taney Co.:** Upland sink-hole pond, marshy habitat surrounded by oak-forest, Drury Sinkhole Pond, T22N R20W SE1/4 S11 N side of Drury Wildlife Area Rd, 19 Jun 1979, *Haefner 1036* (UMO). **Vernon Co.:** Dry prairie, Osage Prairie, T34N R31W S4, with yellow petals, 3 Sep 1988, *Chang 295* (MO); Camp Clark, 5 Jul 1993, *Matheis 166* (SMS). **Warren Co.:** Creek bottom and dry woods, Daniel Boone Conservation Area, T46N R04W SE1/4 SE1/4 S04, 28 Jun 1994, *Anderson MO396* (MO). **Wayne Co.:** Base of N-facing wooded limestone slopes along St. Francis River, just SE of mouth of Redman Creek, T26N R07E S03, 0.75 mi SW of Wappapello, 3 Sep 1938, *Steyermark 6475* (MO). **Worth Co.:** Wooded slopes along East Fork of Grand River, 1 mi S of Denver, 30 Aug 1934, *Steyermark 15050* (MO). **Wright Co.:** Sandstone slopes along Beaver Creek, near Jarret's Ford, 3 mi N of Manes, 21 Aug 1937, *Steyermark 25089* (MO).

***Desmodium rotundifolium*** (Michx.) DC.

**Barry Co.:** Shallow, rocky soil of deciduous forest, Table Rock Reservoir, 15 mi SE of Cassville, 13 Sep 1975, *Boatright 19* (MWSJ); Rocky open woods, along Flat Creek, near Jenkins, 6 Jun 1957, *Palmer 65583* (UMO); Eagle Rock, 18 Sep 1896, *Bush 43* (MO); Roaring River, 7 Sep 1898, *Trelease 1029 & 1030* (MO); Rocky woods, 16 Jul 1935, *Bush 14996* (MO). **Bollinger Co.:** Blue Pond Natural Area, very deep, clear, spring-

fed sink-hole pond developed in Ordovician dolomite on a partially wooded slope above a tributary to Pond Creek which flows into the Castor River, pond margin shrub community: Alder-Buttonbush, T29N R08E SW1/4 SW1/4 S11, 31 May 1979, *Haefner 524* (UMO). **Boone Co.:** Upland cherty dry slopes above lime glade, Univ. of Missouri Game Preserve, T46N R11W S30, 4.75 mi SE of Ashland, along Brushy Creek, 18 Jul 1958, *Steyermark 86123* (UMO); Tracts 20-21, Federal Wildlife Area, Ashland, 26 Aug 1937, *Jeffrey 175* (UMO-2 sheets); Federal Wildlife Area, Ashland, 10 Sep 1940, *Knight 156* (UMO); Ashland Area, woods, 9 Sep 1946 no collector (UMO). **Butler Co.:** Cherty slopes bordering lowland woods along Mud Creek, 2 mi NW of Rombauer, T26N R07E S20, 7 Jul 1936, *Steyermark 11423* (MO); Rocky upland woods, Poplar Bluff, 11 Sep 1919, *Palmer 15659* (MO); Knolls in low woods, Neelyville, 16 Sep 1919, *Palmer 16455* (MO); Rocky open dry woodland, Upper Mud Creek, 23 Aug 1974, *Christ s.n.* (MO). **Callaway Co.:** Cherty slopes above bluffs along Stinson Creek, 3 mi SE of Fulton, T47N R9W S34, 10 Sep 1937, *Steyermark 26086* (MO); Stony ground, between spring and Indian Hill, Dulle Mill, 14 May 1932, *Rickett 249* (UMO). **Camden Co.:** Wooded area, S of Ha-Ha-Tonka State Park, T37N R17W N1/2 N1/2 S11, 15 Sep 1985, *Castaner 8900* (WARM); Dry, rocky, chert rock soil on open woody hilltop, 4 mi S of Hurricane Deck, 24 Aug 1969, *Stephens 36344* (KANU). **Capre Girardeau:** Low wooded slopes of N-sloping ravine tributary to Dog Hollow, along rd, T11S R14E S29, 2 mi NW of Neeley's Landing, 29 Aug 1954, *Steyermark 76978* (UMO). **Christian Co.:** Shallow glade soil, 0.5 mi W of Swan lookout tower, Mark Twain National Forrest, 21 Aug 1961, *Richmond 366* (UMO). **Cole Co.:** Cherty sandstone upper slopes of ravine tributary to Osage River, 4 mi N of St. Thomas, T43N R12W S35, 18 Aug 1937, *Steyermark 24932* (MO). **Crawford Co.:** Chert slopes above lime bluffs along Meramec River, ca 7 mi SE of Bourbon, 21 Sep 1934, *Steyermark 15350* (MO); Dry mesic chert forest, Mound Ridge Camp, T37N R05W S18, 31 Aug 1992, *Ryan 2111* (MO). **Dade Co.:** Open woods, along small upland stream, 3 mi E of Pennsboro, 14 Sep 1950, *Palmer 51087* (UMO). **Dent Co.:** Rhyse, 5 Sep 1927, *Kellogg 954* (MO); Chert slopes above limestone bluffs along Meramec River between Howe and Sligo, 1 Oct 1934, *Steyermark 15714* (MO). **Dunklin Co.:** Sands, Malden, 8 Sep 1910, *Bush 6262* (MO). **Greene Co.:** Upland woods, fall 1926, *Bower s.n.* (SMS). **Hickory Co.:** Open woods on path to Cross Timbers Glade, 23 Jun 1995, *Castaner 11549* (WARM). **Howell Co.:** N-facing wooded slope on creek, down stream from Low's Ford on Indian Creek, ca 4.5 mi W of Willow Springs on Co. Rd NW 571, T27N R10W S30, 11 Sep 1993, *Summers 6454* (MO); Tingler Lake, 2001, *Summer 9854* (MO). **Iron Co.:**



Shepherd Mountain, 27 May 1916, *Drushel 3012* (MO); Pilot Knob, 20 Aug 1895, *Glatfelter s.n.* (MO-2 sheets). **Jasper Co.:** Rocky woods, Carthage, 24 Jul 1910, *Palmer 3039* (MO); Rocky woods, Carthage, 24 Jul 1910, *Palmer 3039* (MO); Rocky woods, 5 mi SE of Carthage, 11 Sep 1910, *Palmer 3160* (MO); Dry open woods, Lakeside Park, near Webb City, 27 Aug 1919, *Palmer 16149* (UMO); Thickets, rocky uplands, near Webb City, 1 Oct 1925, *Palmer 28971* (UMO). **Jefferson Co.:** Stony hills near Rankin, 26 Aug 1879, *Eggert s.n.* (MO-2 sheets); DeSoto, 24 Aug 1932, *Ledman s.n.* (MO); Dry upland woods, 3 mi SW of Crystal City, 29 Sep 1929, *Steyermark 1319* (MO); Illegible locality, 2 Sep 1879, *Eggert s.n.* (MO). **Laclede Co.:** Cherty wooded slope, Mark Twain National Forest, ca 2 mi NE of Falcon, T34N R13W S27, 15 Jul 1995, *Summers 7500* (MO); Cherty sandstone upland woods, tributary to Mill Creek, 5 mi E of Lebanon, 23 Aug 1937, *Steyermark 25193* (MO). **Lawrence Co.:** Rocky wooded bank near Verona, 4 Jun 1953, *Palmer 55789* (UMO); Open upland woods, along Center Creek, near Big Spring School, Mt. Pleasant Township, 15 Aug 1950, *Palmer 50711* (UMO). **Lincoln Co.:** Dry cherty sandstone slopes in ravine tributary to Mill Creek, 3 mi NE of Silex, T51N R01W S28, 8 Sep 1937, *Steyermark 26011* (MO). **Maries Co.:** Cherty wooded upper slopes along Gasconade River, 2.5 mi N E of Vienna T40N R09W S15, S10 & S11, 29 Aug 1937, *Steyermark 25551* (MO); Chert slopes above limestone ledges along Spring Creek, ca 3 mi E of Gasconade River bridge, NW of Vichy, 16 Sep 1934, *Steyermark 15276* (MO). **McDonald Co.:** No locality, 24 Jul 1892, *Bush s.n.* (MO, UMO); Dry woods, Noel, 10 Sep 1913, *Palmer 4240* (MO); Noel, 10 Sep 1920, *Palmer 19038* (MO); No locality, 1 Sep 1893, *Bush s.n.* (MO). **Miller Co.:** Cherty slopes above limestone bluffs along Bolin Creek between Sudheimer and Iberia, 4 Jul 1934, *Steyermark 13040* (MO). **Moniteau Co.:** Upland oak-hickory woods, 2 mi SW of Enon, T43N R14 S26, 16 Aug 1936, *Steyermark 24783* (MO). **Morgan Co.:** Cherty upland slopes near mouth of Procter Creek, 6 Jul 1934, *Steyermark 1315* (MO). **Newton Co.:** Rocky open woods, 4.5 mi SW of Joplin, 19 Jul 1952, *Palmer 54503* (UMO). **Oregon Co.:** Between Thayer and Alter, 29 Jul 1895, *Trelease s.n.* (MO). **Ozark Co.:** Rocky open woods, near Gainesville, 3 Oct 1937, *Palmer 43916* (MO); Common in dry chert woodland, Caney Mountain Conservation Area, ca 6 mi NNE of Gainesville, LBE plot 4, flower pink, fruit green, 10 Oct 1998, *Dietrich 532* (MO). **Phelps Co.:** Jerome, 14 Oct 1914, *Kellogg 313* (MO). **Pike Co.:** Woods, Ashley, 5 Sep 1932, *Kellogg s.n.* (MO). **Pulaski Co.:** Steep, S-facing, wooded, talus slope below Gasconade River bluffs, N of river and W of MO Hwy 28, 7 mi S of Dixon, T37N R11W S36, 12 Jun 1992, *Raveill 3077* (WARM); Level on broad ridges, FLW [Fort Leonard Wood] Rd U, ca 0.8 mi W of intersection with FLW Rd 46, T34N, R11W S30, 24 Aug 1989, *Ovrebo & Sladewski W0912* (MO). **Reynolds Co.:** Goggins Mt., near Monterey, 13 Aug 1929, *Rickett s.n.* (UMO). **St. Charles Co.:** Acid cherty upper ravine slopes of long ravine tributary to creek, N-facing limestone wooded slopes along Callaway Fork and steep narrow tributary ravines, T45N R02E S7 & S8, 4-5 mi SE of New Melle, 3.5-4 mi NE of Schluersburg, 26 Jul 1956, *Steyermark 82055* (UMO). **St. Francois Co.:** Rocky open woods, N slopes of Simms Mountain, 2 mi S of Elvins, 4 Sep 1977, *Summers 355* (MO). **Ste. Genevieve Co.:** Dry rocky woods, Hickory Canyon Natural area, LAD Foundation property, ca 2 mi N of Sprott, via dirt rd off Co. Rd EE, T37N R06E, *Mohlenbrock 8997* (MO). **St. Louis Co.:** Allenton, 21 Sep 1875, *Engelmann 18374* (MO); Rocky banks, Meramec Highlands, 25 Sep 1922, *Kellogg s.n.* (MO); Fern Glen, 4 Oct 1915, *Drushel s.n.* (MO); Stony ground, 2 Sep 1879, *Eggert s.n.* (MO); Rocky open dry woodland, Rockwoods tract near Fox Creek, 31 Aug 1973, *Christ s.n.* (MO). **Shannon Co.:** Common in woods, Montier, 22 Aug 1901, *Bush 755* (MO); Fork near Lesterville, 8 Aug 1927, *Rickett s.n.* (UMO); Open rocky woods, Montier, 2 Sep 1918, *Bush 8760* (MO); Sandy woods, Montier, 9 Oct 1916, *Bush 7888* (MO); Base of N-facing limestone bluffs overlooking river, oak forest with thin soil, Jack's Fork River ca 2.5 mi E of bridge at Hwy 17, T27N R06W N1/2 N1/2 S05, alt 900 ft, prostrate, scattered patches of lichens and mosses, understory mostly *Vaccinium* and *Amelanchier*, 19 Aug 1989, *Yatskiyevych 89-306* (MO); Woods, Jam up Bluff, 4 Sep 1932, *Kellogg 26077* (MO, UMO). **Stoddard Co.:** At bottom of wooded valley, 2.5 mi NE of Dexter, 7 May 1981, *Christ s.n.* (MO); Without locality, 12 May 1976, *Toney & Korschgen 599* (UMO); Upper leached and cherty wooded slopes just SW of Idlewild, 11 Jul 1936, *Steyermark 11629* (MO); Dry woods in ravine on level area of Crowley's Ridge near Ardeola School near Ardeola, 8 Nov 1936, *Steyermark 20770* (MO). **Stone Co.:** Marble Cave, 11 Sep 1898, *Trelease 1031* (MO); Margin of a woodland, along MO Hwy 76, ca 1 mi N of its junction with MO Hwy 265, 30 Aug 1968, *Henderson 68-820* (MO). **Taney Co.:** Common in woods, Swan, 29 Sep 1899, *Bush 653* (MO); Wooded ridge, Drury Refuge, 28 Aug 1940, *Spencer 81* (UMO). **Texas Co.:** Grassy Hollow, S end of Jacks Fork River, 29 Aug 1970, *Sutter 212 & 214* (MO). **Warren Co.:** Boone Area [Daniel Boone Conservation Area], 19 Jul 1961, *Toney & Korschgen 1337* (UMO); Dry cherty slopes above sandstone bluff along Charrette Creek, 9 mi SE of Warrenton, 4 Oct 1934, *Steyermark 15848* (MO, UMO); Cherty dry S-facing open wooded slopes 3/4 way up near red cedar grove, sandstone and limestone slopes and bluffs of Toque Creek, 6-6.5 mi NE of Marthasville, T45-46N R01W S34 and N boundary of S03, 22 Aug 1956, *Steyermark 82508* (UMO).

***Desmodium sessilifolium*** (M. A. Curtis) Torr. & A. Gray

**Adair Co.:** Roadside on ridge, 3.6 mi NW of Kirksville, 26 Aug 1968, *Conrad 4985* (NEMO, UMO); Thousand Hills State Park, 15 Oct 1982, *Walker 222* (NEMO, UMO). **Barry Co.:** Seligman, 21 Aug 1892, *Dewart s.n.* (MO); Open bank, along railway, near Purdy, 26 Aug 1957, *Palmer 66408* (UMO-2 sheets). **Barton Co.:** Border of woods, 4 mi NE of Lamar, 20 Sep 1956, *Palmer 64070* (UMO); Sandy open ground, old strip coal mines, near Mindenmines, 27 Aug 1952, *Palmer 54950 & 54968* (UMO); Upland prairie, sandy soil, near Bakers, 19 Jul 1957, *Palmer 60761* (UMO); Upland prairie, sandy soil, 0.5 mi SE of Mindenmines, 19 Aug 1954, *Palmer 58600* (UMO); Upland prairie, sandy soil, 2 mi N of Lamar, 6 Aug 1955, *Palmer 60782-A* (UMO); Open upland woods, sandy soil, 2 mi NE of Milford, 23 Sep 1951, *Palmer 53122* (UMO); Prairie, Mon-Shon Prairie Area, 25 Aug 1992, *McGregor 40802* (KANU). **Bates Co.:** Roadside, along MO Hwy 52, ca 10 mi W of Appleton City, 29 Aug 1967, *Henderson 67-1594* (UMO). **Butler Co.:** On Co. Rd 426, ca 1.25 mi S of Hwy 60, T25N R04E SE1/4 SW1/4 S11, a few plants in fence line with a small ditch behind, flowers white, plants over 2 meters tall, 7 & 15 Aug 1994, *Hudson 512 & 540* (MO). **Camden Co.:** Limestone glade above edge of bluff, SE-facing limestone Chapel Bluff along Niangua River, 8-8.5 mi SE of Mack's Creek, T37N R18W S26, 24 Oct 1954, *Steyermark 78228* (UMO). **Carroll Co.:** Field on W side of Hwy Z, Bunch Hollow Conservation Area, ca 5 mi NW of Coloma, 30 Aug 1995, *Loring s.n.* (MO). **Cass Co.:** Prairie-like fallow field on ridge top, vicinity of South Fork of Harding Creek, T43N R33W S02 and N boundary of sect. 11, 5.5-5.75 mi SW of Freeman, 26 Sep 1955, *Steyermark 80119* (MO, UMO); Border of thicket, 31 Aug 1865, *Broadhead s.n.* (MO); Open field, along an old RR, ca 1 mi SE of Belton, 3 Sep 1966, *Henderson 66-886* (KANU, UMO); Vacant lot just S of Nickerson Farms parking lot, weedy slope reseeded with fescue, SW corner of jct MO Hwy 71 and MO Hwy 7, Harrisonville, 15 Sep 1991, *Brooks 18955* (KANU). **Christian Co.:** Open bank, along RR, Billings, 6 Sep 1954, *Palmer 58879* and 13 Jul 1955, *Palmer 60608* (UMO). **Cooper Co.:** Cherty grassy slopes on top of W-facing limestone bluffs along Lamine River, 2-2.5 mi NNE of Clifton City, T47N R19W S32, 8 Oct 1938, *Steyermark 21817* (MO). **Crawford Co.:** Roadside bank with prairie on top, 1.5 mi S of Cuba, 9 Sep 1966, *Stephens 9205* (KANU). **Dallas Co.:** Cherty, limestone outcrops of natural prairie 3.5 mi S of Buffalo, 4 Aug 1937, *Steyermark 24152* (MO); On large steep cherty limestone barren below main upper bluffs, S-facing limestone "Guthrie Bluff" along Niangua River, T36N R18W S border of S25, 5.5-6 mi W of Eldridge, 5.5 mi SE of Leadmine, 22 Oct 1954, *Steyer-*

*mark 78113* (UMO). **Dent Co.:** Gravel bar along headwaters of Meramec River, 2 mi SE of Max, T33N R04W S14, 10 Aug 1936, *Steyermark 12826* (MO). **Dunklin Co.:** Sandy prairies, Kennett, 31 Aug 1930, *Kellogg 15208* (MO); Along RR by Hwy 62, 3.2 mi S of Malden, 19 Aug 1955, *Steyermark 79438* (MO, UMO); Malden, Sep 1893, *Bush s.n.* (MO); Open ground in sandy soil along RR, 3 mi S. of Campbell, 1 Oct 1955, *Palmer 61490* (UMO). **Franklin Co.:** Rocky banks, Meramec State Park, Sullivan, 7 Sep 1930, *Kellogg s.n.* (MO); Near Meramec Spring, 12 Aug 1927, *Rickett 2790* (UMO). **Greene Co.:** Prairie remnants bordering RR, 3 mi NW of Willard, T30N R23W S08, 20 Sep 1979, *Summers 619* (MO); James River, 23 Jul 1896, *Glatfelter 140* (MO); Flowers yellow, Brookline, 14 Sep 1904, *Kellogg s.n.* (MO); Brookline, 24 Sep 1908, *Kellogg s.n.* (MO); Brookline, 14 Sep 1909, *Kellogg s.n.* (MO-2 sheets); No locality 20 Aug 1888, *Blankinship s.n.* (MO); Willard, 23 Aug 1888, *Blankinship s.n.* (MO); No locality, 21 Sep 1893, *Bush s.n.* (MO); 1 mi SW of Brookline along RR, T28N R23W S10, 24 Sep 1983, *Summers 1287* (MO). **Henry Co.:** Unplowed prairie of William Howard, Clinton, 13 Jul 1996, *Eaglesfield 171* (UMO); Rocky prairie, along MO Hwy 7, ca 3 mi W of Tightwad, 14 Sep 1972, *Henderson 72-138* (MO); Weedy, waste corner of prairie, 10 mi E and 1 mi N of Clinton, 23 Aug 1969, *Stephens 36294* (KANU). **Howell Co.:** Edge of woods along E side of rd, ca 8 mi E of West Plains off Hwy ZZ on Co. Rd SE 979, T24N R07W NE1/4 S25, 8 Sep 1993, *Summers 6397* (MO). **Jackson Co.:** Prairies, Buckner, 5 Oct 1921, *Bush 9716* (MO). **Jasper Co.:** Dry prairies, Webb City, 4 Aug 1909, *Palmer 2582* (MO-2 sheets); Webb City, 25 Sep 1909, *Palmer 2760* (MO); No locality, 16 Aug 1893, *Bush s.n.* (MO); Roadside dry prairie, Alba, 16 Sep 1913, *Palmer 4342* (MO); Frequent in dry open ground, Scotland, 12 Sep 1909, *Palmer 2681* (MO); Upland prairies-frequent, 2 mi E. of Carthage, 28 Aug 1919, *Palmer 16155* (UMO); High prairies, near Waco, 24 Jul 1920, *Palmer 18471* (UMO); Roadside, Lamar, Aug 1928, *Williams s.n.* (UMO); Rocky upland prairies, near Carthage, 1 Sep 1924, *Palmer 26097* (UMO); Rocky uplands, near Carthage, 6 Oct 1925, *Palmer 29044* (UMO); Dry rocky open ground near Neck City, 21 Sep 1923, *Palmer 23866* (UMO); Rocky upland prairie, 1 mi SE of Webb City, 9 Aug 1958, *Palmer 67470* (UMO); Frequent on prairies, 3 mi S of Carthage, 28 Aug 1919, *Palmer 16180* (UMO); Carthage, 6 Oct 1925, *Bush 10389* (MO-2 sheets). **Jefferson Co.:** Spring Park, 24 Jul 1891, *Horsford s.n.* (MO). **Johnson Co.:** Margin of a wooded area along the entrance drive into Powell Gardens, 28 Aug 1992, *Henderson 92-379* (MO); Sandy field, Warrensburg, 2 Sep 1969, *Castaner 312* (WARM); Open field, 1.4 mi N of Reagan, 20 Jul 1971, *Castaner 1769* (WARM). **Laclede Co.:** Cherty limestone, sandy soil, Indian Grave Point, Bluff Prairie,

10 km N of Bennett Springs, T36N R17W SW1/4 S32, 28 Sep 1974, *Conrad 3440* (MO). **Lawrence Co.:** Open ledges of limestone hillside above river, 1 mi S of Verona, 15 Aug 1950, *Palmer 50746* (UMO); Sandy open banks, in RR cut through Pennsylvanian sandstone, 2 mi SE of Aurora, 25 Aug 1953, *Palmer 56610 & 56655* (UMO). **Lewis Co.:** Prairie-clad slopes, hills and ravines tributary to Grassy Creek, T60N R07W S29, 2.5-2.75 mi SW of Durham, 12 Aug 1955, *Steyermark 79136* (UMO). **Lincoln Co.:** Sandy woods, Toby, 22 Sep 1932, *Kellogg s.n.* (MO); Open places in soil derived from St. Peter sandstone, in ravine along branch of Sandy Creek, 2 mi W of Foley, 22 Sep 1932, *Steyermark 8121* (MO). **Linn Co.:** Prairie openings in upland oak-hickory woods, near Macon Co. line, just E of Bucklin, 11 Oct 1934, *Steyermark 16061* (MO, UMO); Dry open prairie slopes, vicinity of Painter Creek, T58N R18W S01, 6-7 mi S. of New Boston, 20 Sep 1955, *Steyermark 79718* (UMO). **Macon Co.:** Prairie openings along rd on ridge, 4.5 mi SE of New Boston, T59N R17W S30, 14 Sep 1954, *Steyermark 77300* (UMO). **Maries Co.:** Along RR tracks above wooded ravine, T41N R08W W part of S30 and E part of S25, 2-2.5 mi SW of Belle, 16 Aug 1955, *Steyermark 79339* (MO, UMO); Limestone glade along Gasconade River, T40N R09W S10 & S11, 2.5 mi NE of Vienna, 29 Aug 1937, *Steyermark 25564* (MO); Prairie on level upland in vicinity of Lanes' Prairie, 16 Sep 1934, *Steyermark 15341* (MO). **McDonald Co.:** No locality, 1 Sep 1893, *Bush s.n.* (MO). **New Madrid Co.:** Sandy prairies, Marston, 31 Aug 1930, *Kellogg s.n.* (MO). **Newton Co.:** Dry prairie near Neosho, Aug 1882, *Eggert s.n.* (MO-2 sheets); Open bank, upland prairie, 4 mi SW of Hornet, 10 Oct 1956, *Palmer 64503* (UMO); Open bank, border of woods, Sagmount, near Saginaw, 26 Jul 1956, *Palmer 63321* (UMO); Open bank, border of woods, 2.5 mi N. of Racine, 27 Jul 1956, *Palmer 63341* (UMO). **Ozark Co.:** Limestone glade in Blue Springs game refuge, Gardner National Forest, T24N R11W S23, 12 Sep 1936, *Steyermark 20050* (MO). **Pettis Co.:** Prairie edge near creek, central-north prairie, Paint Brush Prairie Conservation Area, 21 Jun 2001, *Smith & Raveill 1012* (WARM); Grandfather Prairie Conservation Area, 9 mi SSW of Sedelia, 17 Aug 1998, *McCauley 394* (WARM). **Phelps Co.:** Open area, 1.5 mi W of Elk Prairie on dirt roadside, 29 Aug 1974, *Castaner 3773* (WARM). **Polk Co.:** Graydom Springs, 22 Jul 1896, *Glatfelter s.n.* (MO); Dry open bank, along RR, Bolivar, 26 Sep 1956, *Palmer 64222* (UMO); Open upland, Bolivar, 25 Sep 1957, *Palmer 66957* (UMO). **Scott Co.:** Roadsides, Sikeston, 5 Aug 1929, *Kellogg s.n.* (MO); Sandy ground N of Morley, 8 Oct 1893, *Eggert s.n.* (MO); Sandy ridge, 3.75 mi E. of Vanduser, T27N R13E S11, 1 Nov 1956, *Steyermark 83531* (UMO-2 sheets); Brushy thickets and wooded area along fence row bordering rd, very sandy soil, ca 3 mi E of Morley

and 0.6 mi S of Hwy C on Co. Rd 405, T27N R14E NE1/4 S05, 3 Sep 1998, *Summers 8861* (MO); Roadside, Vincent Hulshof Pond, N of Co. Hwy U and W of Co. Rd 405, T27N R14E S04, 3 Sep 1998, *Laatsche s.n.* (MO). **Shannon Co.:** No locality, 12 Sep 1888, *Bush s.n.* (MO); Glades, Jam up Bluff, 4 Sep 1932, *Kellogg 26076* (MO, UMO). **Shelby Co.:** Numerous plants growing in open prairie meadow, private property, ca 2 mi SW of Cherry, ca 0.25 mi E of Co. dirt rd and just W of Salt River, T59N R12W SW1/4 S17, 22 Aug 1995, *Darigo, Sullivan & Vanderbilt 2285* (MO). **St. Clair Co.:** Taberville Prairie, 10 Jun 1972, *Toney 601* (UMO); Taberville Prairie, T38N R28W S23, 15 Jul 1973, *Toney 1341* (UMO); Taberville Prairie Conservation Area, 16 Sep 1979, *Castaner 5942* (WARM). **St. Louis Co.:** No locality, 27 Aug 1877, *Bush s.n.* (UMO); Dry hills, St. Louis, 27 Aug 1877, *Eggert s.n.* (MO); Roadsides along U.S. 66 (old highway), under bluffs of St. Peter sandstone formation, Pacific, 9 Sep 1973, *Christ s.n.* (MO-2 sheets); Thickets W of St. Louis, Aug 1842, *Engelmann 18199* (MO); St. Louis, Jul 1839, *Engelmann 18198* (MO); Open woods, St. Louis, Jul 1838, *Engelmann 18369* (MO). **Ste. Genevieve Co.:** Sandy woods, Pickle Springs, 16 Sep 1928, *Kellogg 1821* (MO). **Sullivan Co.:** Open sterile slopes around ravine tributary to Medicine Creek, T61N R22W S10, 4.5 mi SW of Humphreys, 20 Sep 1955, *Steyermark 79769* (UMO-2 sheets). **Taney Co.:** Common in woods, Swan, 29 Sep 1899, *Bush 639* (MO); Path to Boulder Bald viewing platform, dolomite and limestone glades, Ruth and Paul Henning Conservation Area, ca 0.5 mi N of jct of Hwy 376 and Hwy 76 near Branson, perennial to over 2 m, 9 Sep 1998, *Dietrich 483 & 512* (MO). **Texas Co.:** Open oak woods, sandrock soil, 6 mi E of Licking, 8 Sep 1966, *Stephens 9168* (KANU). **Vernon Co.:** Dry, sunny, open edge of prairie, Osage Prairie, T34N, R31W S04, 6 Aug 1988, *Chang 248* (MO). **Wright Co.:** Limestone glade along bluffs of Gasconade River at mouth of Beaver Creek, T32N R13W S30 & S31, 3 mi SE of Competition, 23 Aug 1937, *Steyermark 25228* (MO).

### ***Desmodium strictum*** (Pursh) DC.

**Scott Co.:** Open, sandy forest of *Quercus* and *Carya*, with sand prairie remnants on S side of co. rd, 2.25 mi W of MO Hwy 77, ca 2 air mi E of Blodgett, T27N R14E NE1/4 S12, alt 325 ft, locally common in partial shade, with *Clitoria*, corollas pink, 9 Sep 1992, *Yatskievych 92-324* (MO-2 sheets); 4.0 mi S on Co. Rd 1505, 0.5 mi W on N side of Co. Rd 1504, T28N R14E SE1/4 SE1/4 SW1/4 S28, 7 Sep 1993, *Holmes 1095* (MO); Remnant sand prairie/savanna/forest complex, 1.5 mi E of Co. Hwy H via dirt rd, ca 3 mi N of Blodgett and 10 mi N of Sikeston, forest dominated by *Quercus*, *Carya*, prairie with *Panicum*, *Schizachyrium*, and diversity of native forbs, T28N R14E S1/2 S28, alt 330-340 ft,

common locally in both sandy woods and open areas, 5 Jun 1992, *Yatskievych 92-167* (MO, NEMO); Fallow field, Scotco sand, 3 mi S of Benton I-55 exit on Hwy. H, 0.5 mi E on N side of Co. Rd. #504, T28N R14E W1/2 NW1/4 SE1/4 S28, 14 May 1992, *Holmes 645* (MO); 1.5 mi E of Co. Rd H via dirt rd, ca 10 mi N of Sikeston, T28N R14E S1/2 S28, alt 330-340 ft, remnant sand prairie/savanna/forest complex, forest dominated by *Quercus*, *Carya*, prairie with *Panicum*, *Schizachyrium*, and diversity of forbs, common in open sand, corollas bright pink when fresh, 8 Jul 1992, *Yatskievych* (MO); Ca 3 mi SE of Benton, T28N R14E S28 E 1/2 SW 1/4 SE 1/4 NW 1/4 NW 1/4 SE 1/4 SW 1/4 NE 1/4, lowlands section of Mississippi lowlands natural division, sand prairies, savanna, and woodland, frequent last year's fruiting stems present, 5 Jun 1992, *Smith 3170* (MO); Property of Dr. Robert Ahlvin, on W side of Co. Rd 505 ca 0.5 mi N or junction with Co. Rd 506, ca 3.5 mi air mi NNW of Blodgett, 80 acres of pine plantations interspersed with areas of open sand prairie remnants and occasional small groves of *Quercus* and *Carya*, also small pond on site, alt 325 ft, 27 Aug 1999, *Yatskievych 99-150* (MO); 2 mi NNE of Blodgett on N side of Co. Rd, property of William Scherer, sand prairie, T28N, R14E S33, SE4, 3 Sep 1998, *Laatsche s.n.* (MO). **Stoddard Co.:** Holly Ridge, T25N R11E S01, 13 Oct 1976, *Toney & Korschgen 1341A* (UMO); Holly Ridge State Forest, ca 3 mi S of Bloomfield, open, eroded sandy area, scattered over 2 acres, T26N R10E

SE4 S36, 20 Oct 1994, *Summers 7270* (MO); Holly Ridge State Forest, ca 3 air mi NE of Dexter via dirt rds leading N from US Hwy 60, just E of Pleasant Valley Church at base of Crowley's Ridge in sandy soil on both sides of dirt rd, openings in scrubby forest of *Quercus*, *Carya*, and *Sassafras*, T25N R11E S6 N1/2 alt 350 ft, 8 plants in sand blowout area on N side of rd, 9 Sep 1992, *Yatskievych 92-341* (MO).

***Desmodium viridiflorum* (L.) DC.**

**Dunklin Co.:** Common, 27 Aug 1894, *Bush 85* (MO); Oak-hickory slopes, sandy and gravelly wooded E-facing slopes, Crowley's Ridge, T23N R09E, S26, 6.5-7 mi NW of Malden, 30 Oct 1956, *Steyermark 83349* (UMO-2 sheets). **Scott Co.:** No locality, 30 Aug 1894, *Eggert s.n.* (MO); Sandy ground, 31 Aug 1894, *Eggert s.n.* (MO). **Stoddard Co.:** Holly Ridge, 2 Jul 1975, *Korschgen 1349* (UMO); Just W of the Holly Ridge Conservation Area, ca 2.5 mi SSE of Bloomfield, T26N R10E NW1/4 SW1/4 S36, approximately 5-10 plants in understory of partially shaded woods along old logging trail, W of the Bloomfield fire tower, 5 Sep 1994, *McKenzie 1527* (MO); Woods near top on S side, Rock Knob S of Club Creek, T27N R09E SW 1/4 S26 and NW1/4 S35, 2.5 mi N of Acorn Ridge, 20 Aug 1954, *Steyermark 76713* (UMO).

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